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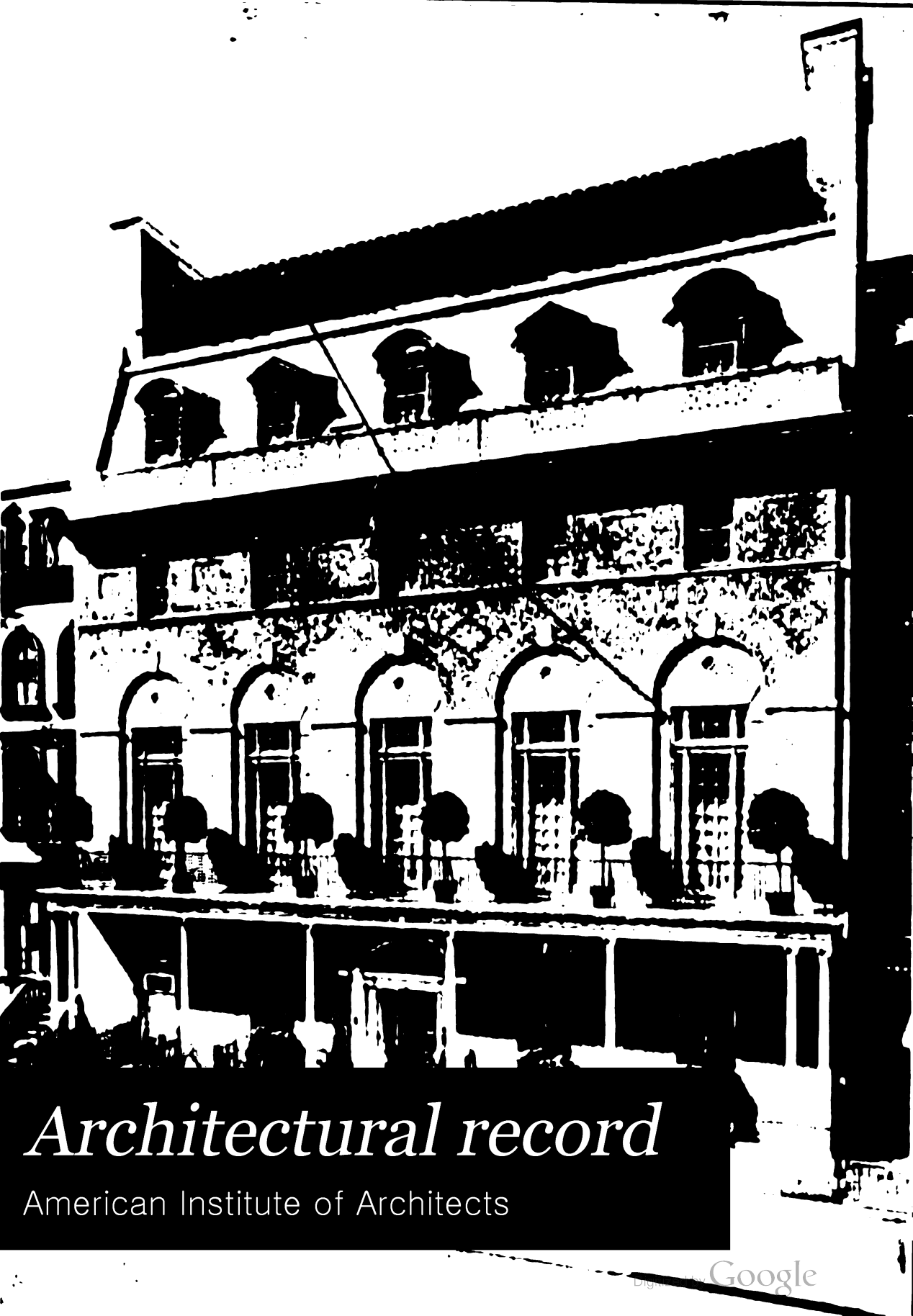
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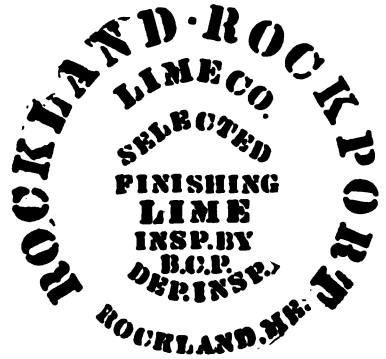
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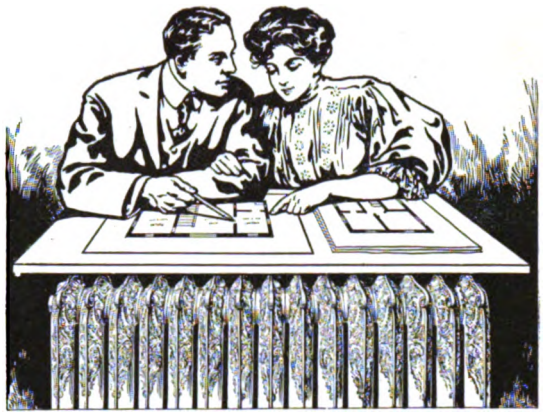
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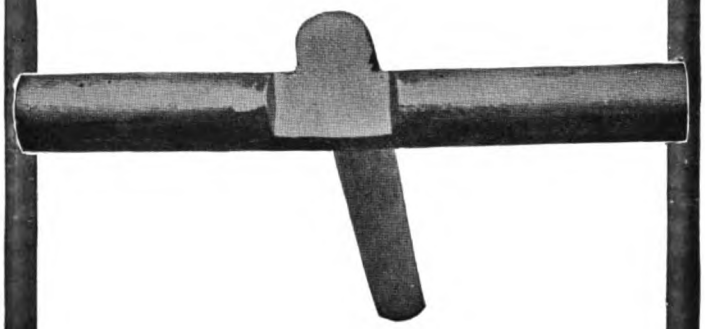
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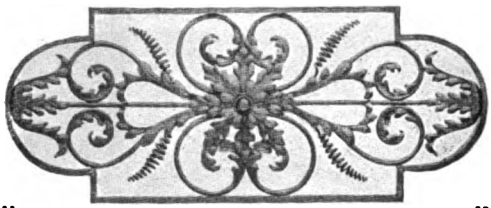
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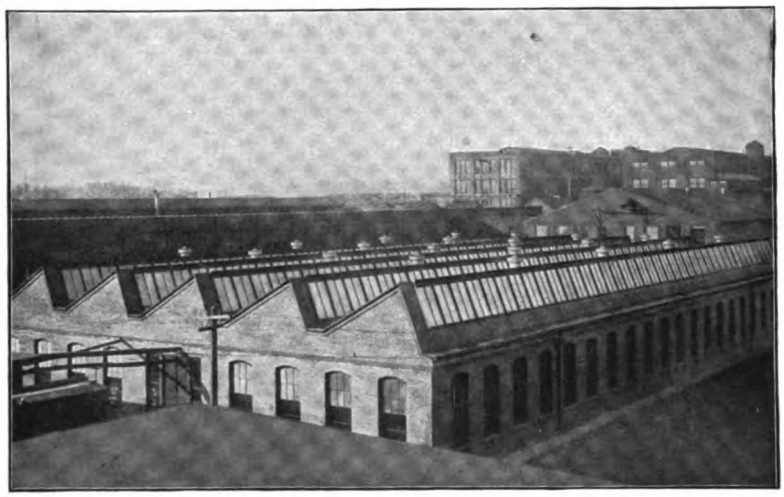
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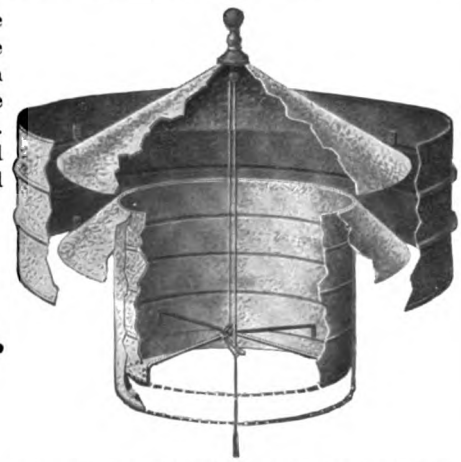
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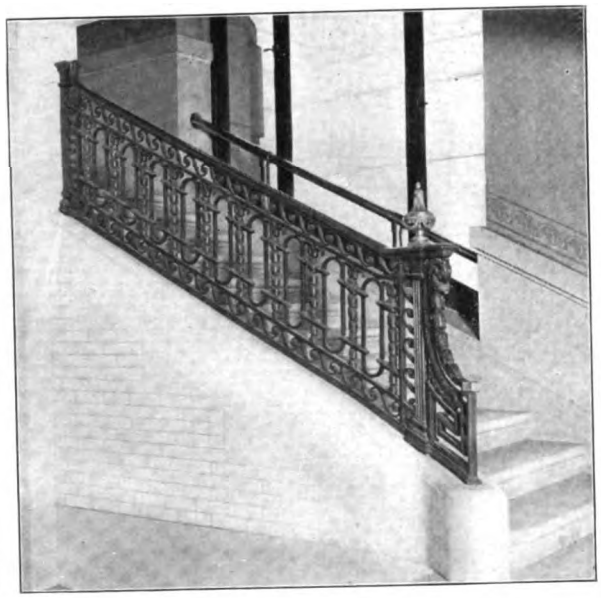
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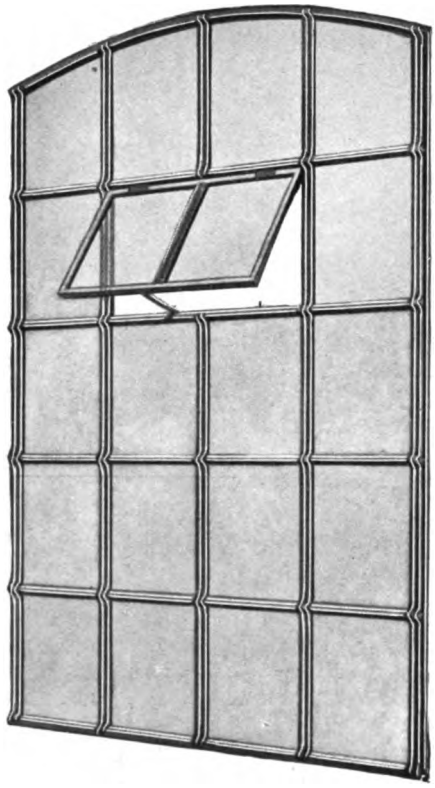
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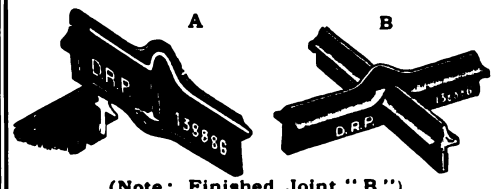
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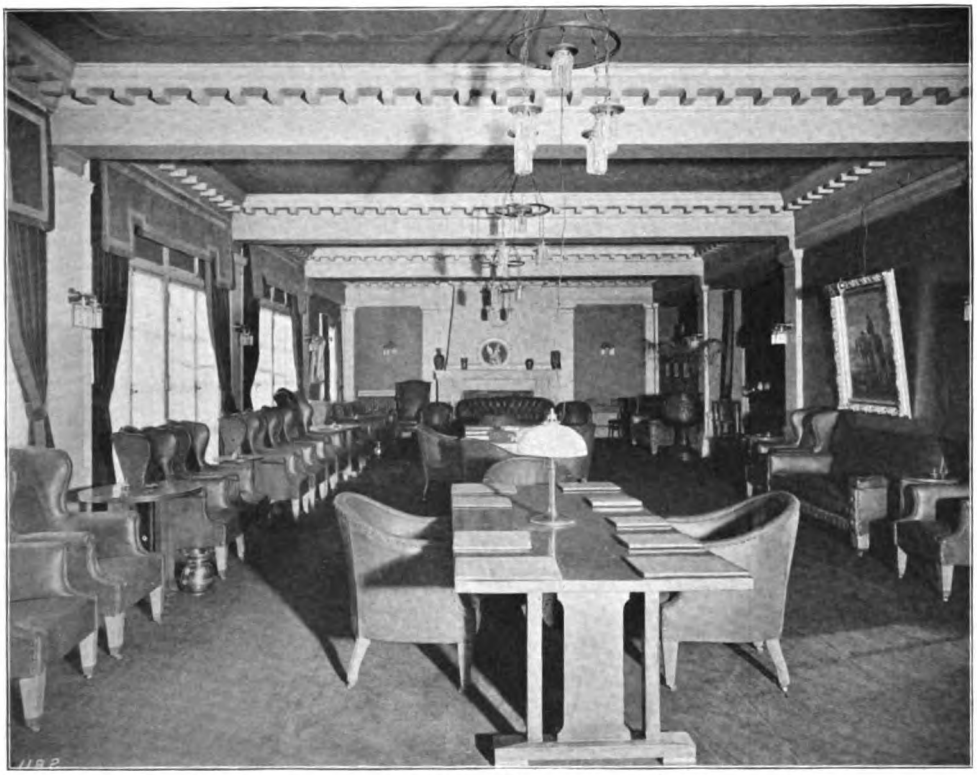
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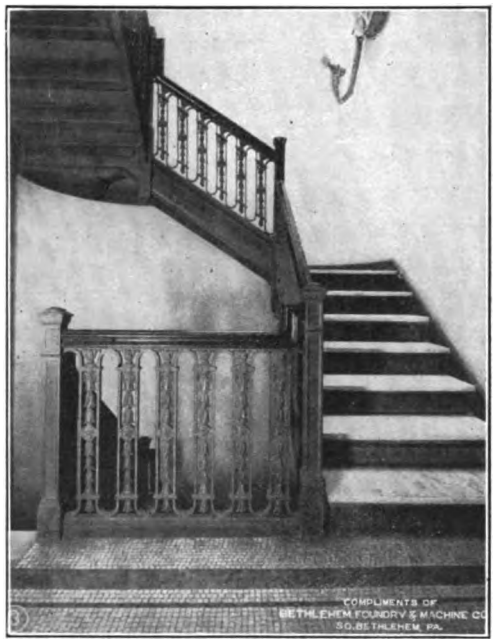
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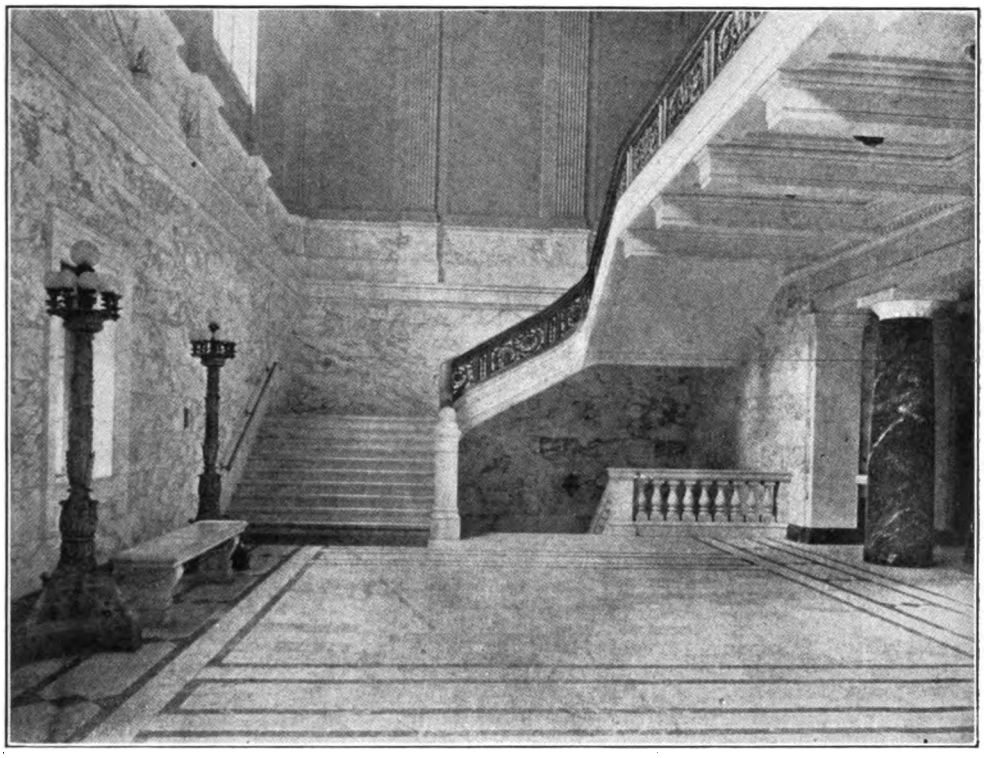
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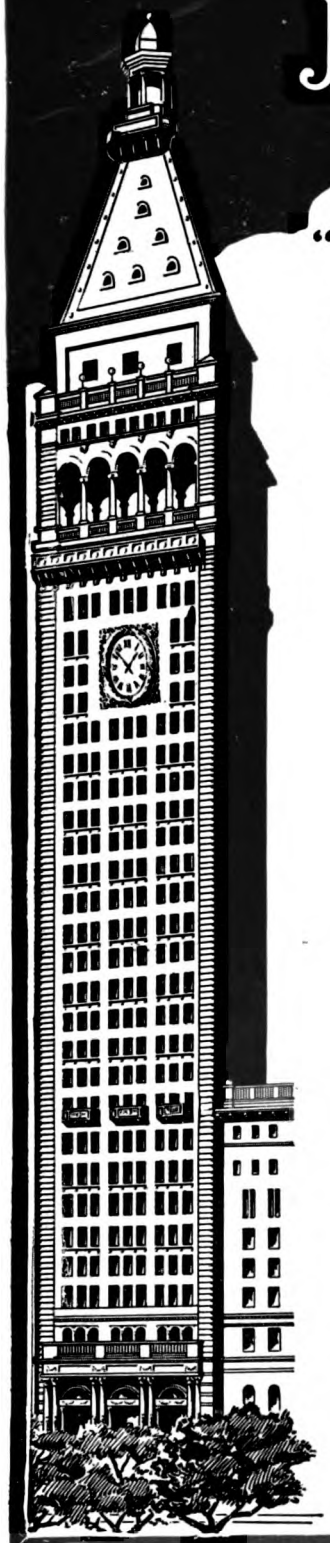
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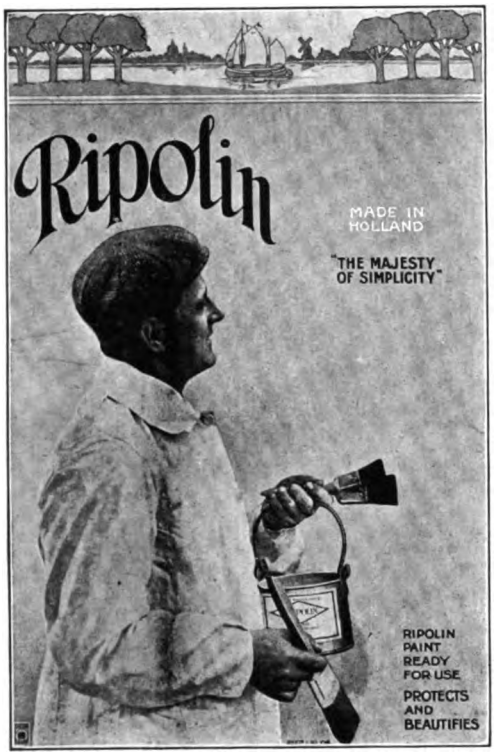
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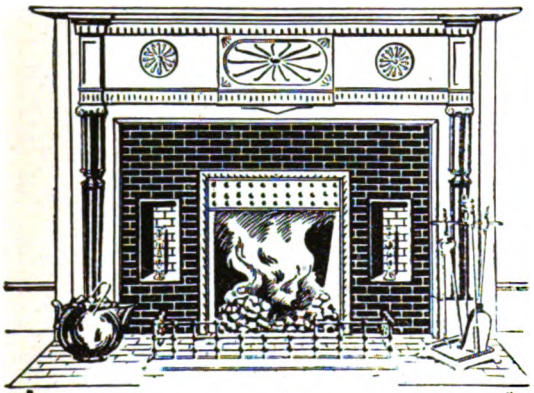
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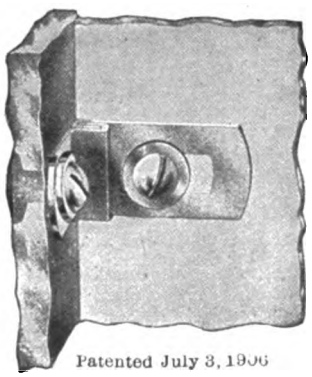
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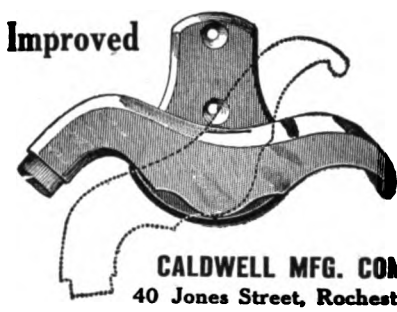
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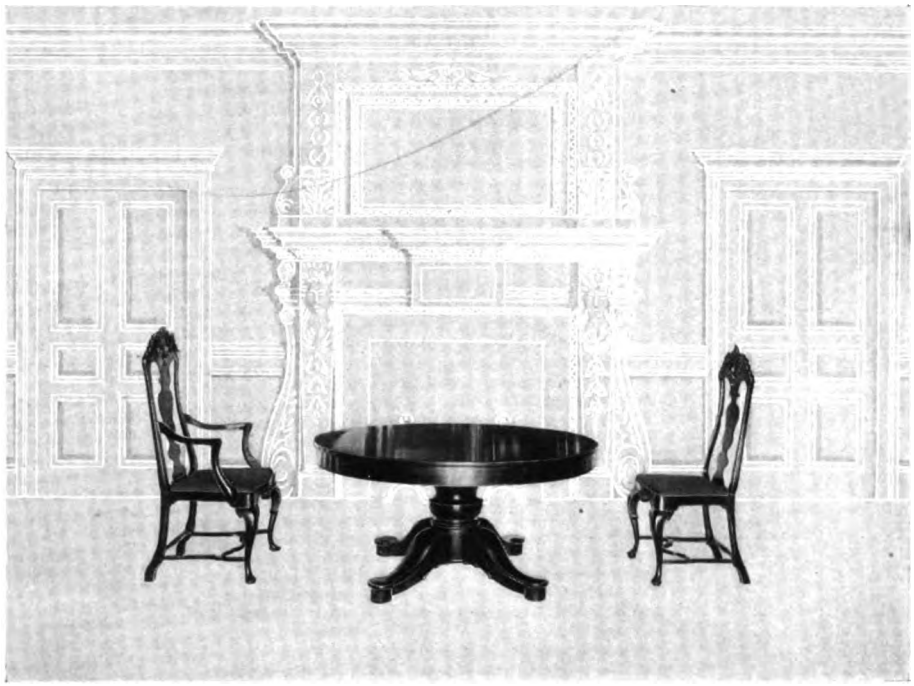
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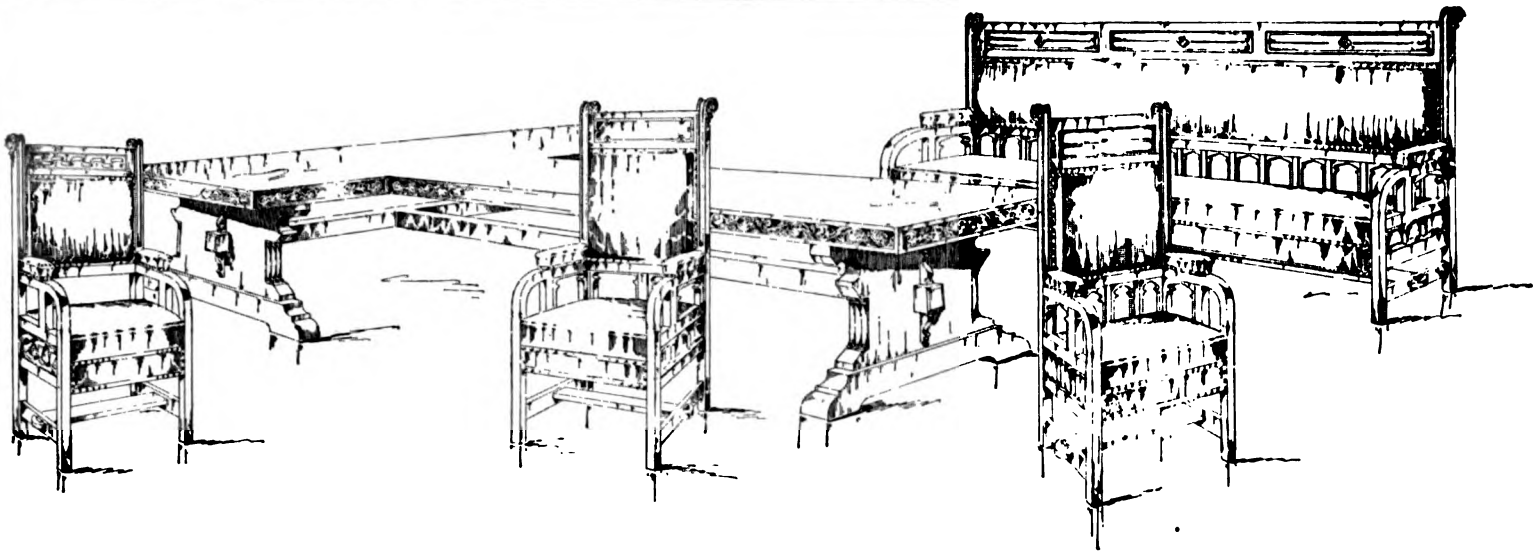
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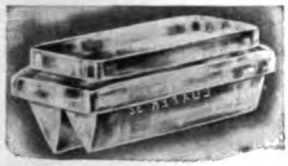
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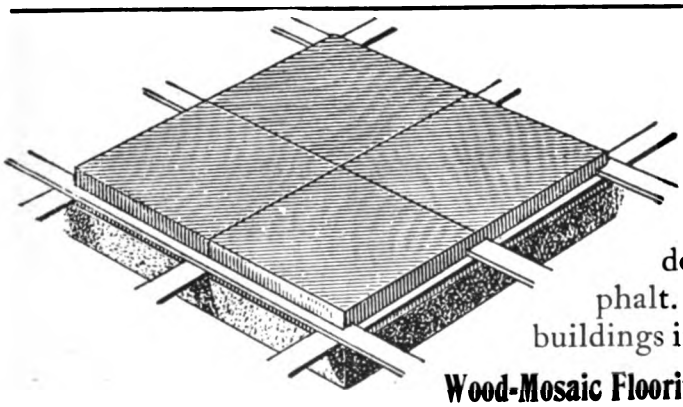
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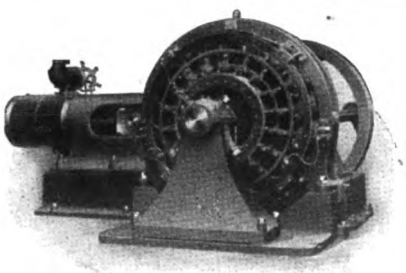
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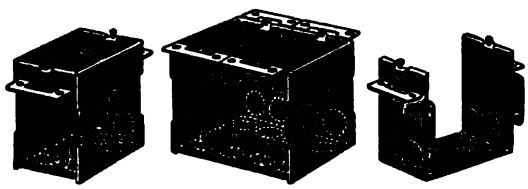
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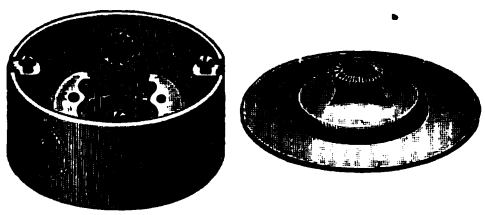


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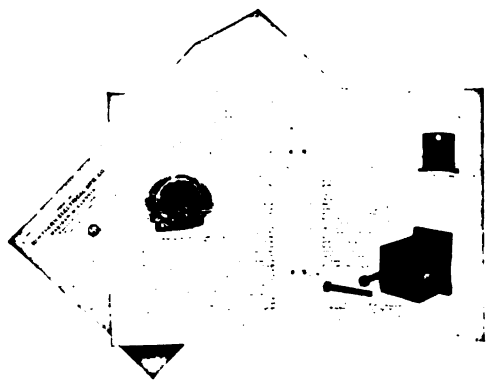
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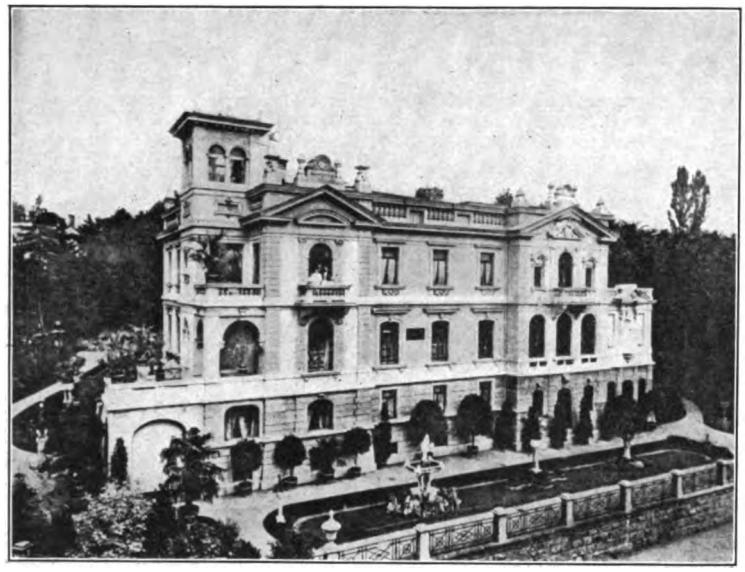
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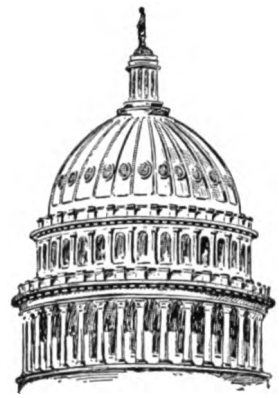
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THE ARCHITECTURAL RECORD

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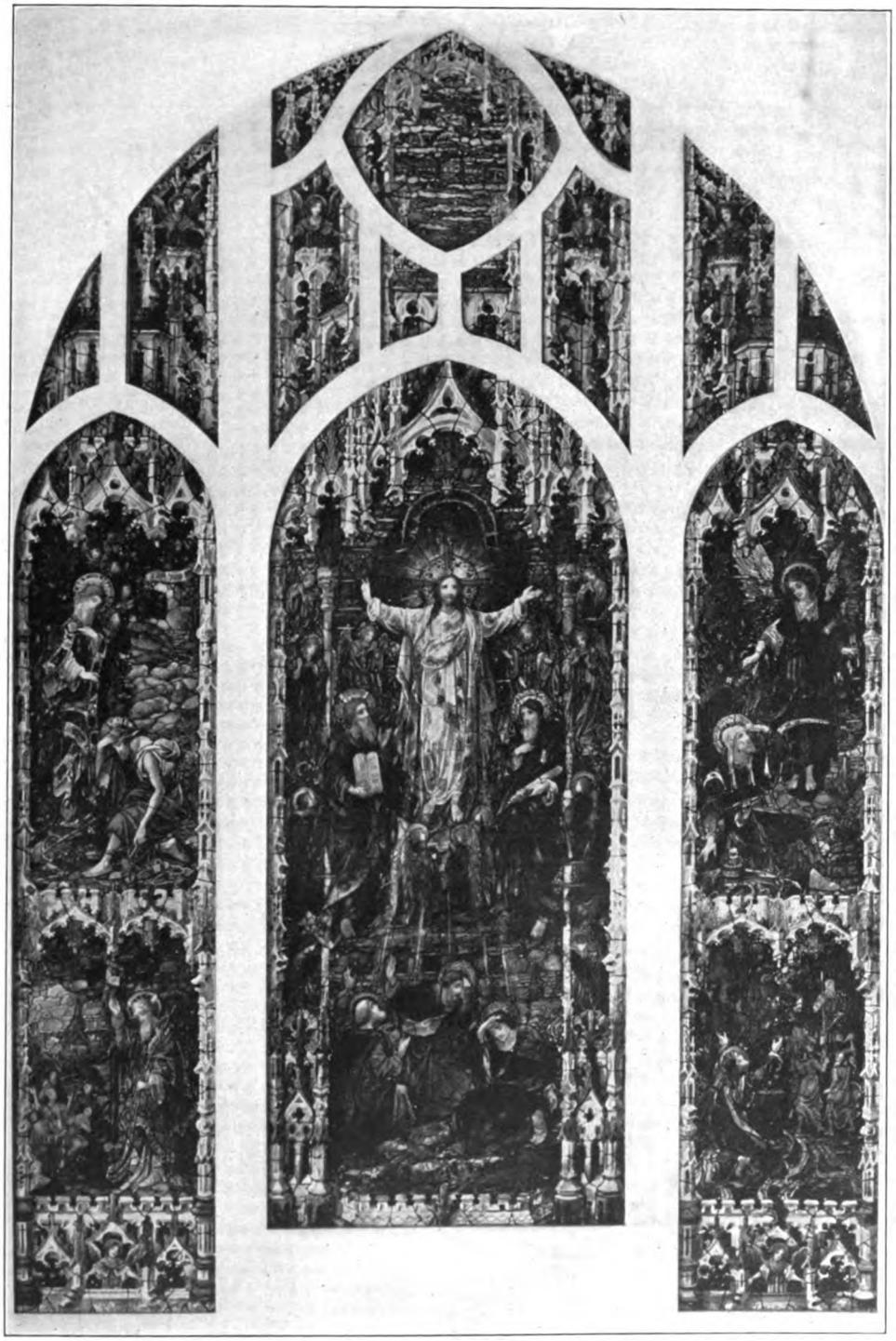
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A Cooperative Apartment House in New York

Designed by Chas. A. Platt

Some years ago the Architectural Record published the illustrations of an apartment house which had recently been completed on West 67th Street in New York City. This apartment house had been erected by a number of painters, who had clubbed together to buy the land, and who were joint owners of the completed building. Each of the subscribers had purchased one large apartment with a studio, and the apartments not so owned were rented at prices, which in their aggregate were sufficient to pay all the expenses of the building, including the interest on the mortgage and the taxes. The owners, consequently, obtained their apartments at the cost of their original investment, which in this instance was only $10,000. They obtained, that is, an apartment which would rent for over $2,000 a year for about $500 a year, and they could certainly congratulate themselves, not only upon the possession of an unusually comfortable place in which to live and work, but also upon a very good stroke of business.

This building was such a success from almost every point of view that other similar buildings were soon started. Within a couple of years, two more coöperative apartment houses were built on the same block, and still another followed soon after. In spite of the fact that in each new enterprise the cost of participation increased, these newer ventures repeated the success of the first, and in every case the subscribers soon found their stock selling at a premium. This persistent success suggested the idea to certain other people that enterprises which were so profitable on West 67th Street might be similarly profitable elsewhere in New York. New sites were bought and new companies were formed, but with the increasing popularity of the idea a serious obstacle was encountered. The original building on 67th Street was really a violation of that provision of the tenement-house law which limits the height of tenement houses to one and one-half times the width of the street upon which they are erected. The clause had been evaded because the buildings were classified as apartment hotels; but they were not hotels. Every one of the larger apartments had a kitchen; and the buildings were manifestly tenements in the statutory meaning of the word. This defect in the title of the original buildings was cured by special legislation; but obviously coöperative companies could not continue to erect buildings in defiance of the law. The original plan required for its success an edifice about as high as an ordinary twelve-story building; and such an edifice could be erected only on an avenue or on an exceptionally wide street. But land on avenues or exceptionally wide streets is much more expensive than is land on an ordinary 60-foot street, and this increased initial expense meant a substantially larger subscription on the part of the original stockholders. People interested in the new buildings were not deterred, how-

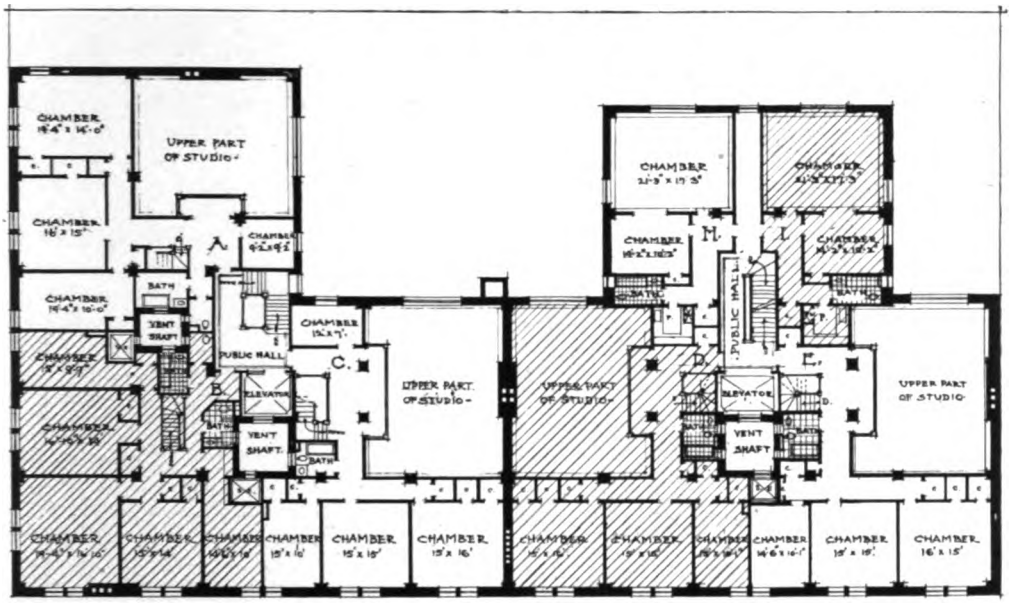
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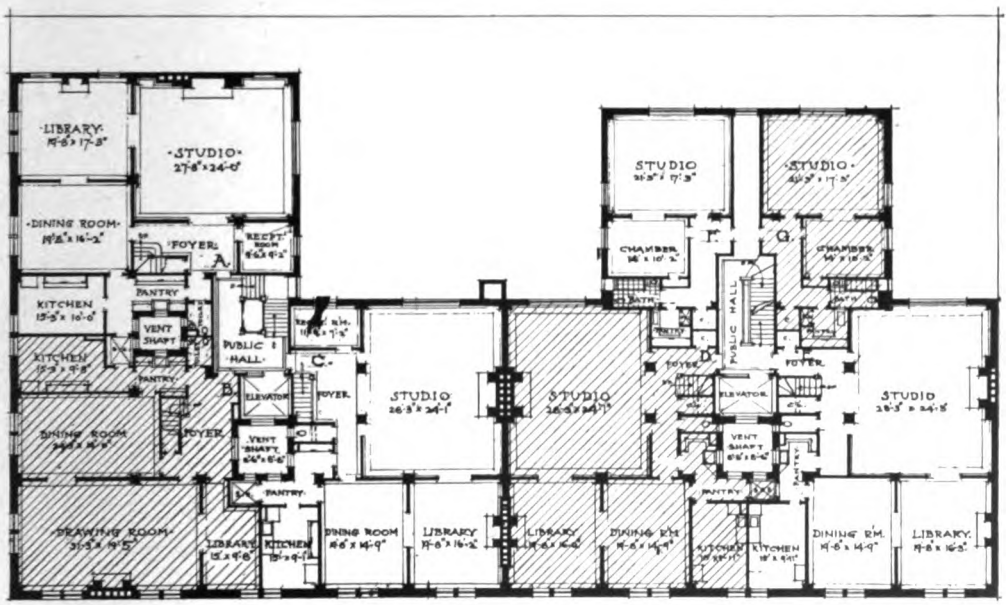
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ever, by the necessity of enlarging their subscriptions. More than a half dozen new coöperative apartment houses have since been erected, situated either on avenues or on wide streets like 57th Street, and the price of apartments in these newer buildings has varied between $18,000 and $30,000. Moreover, with this increase in the initial cost, the character and plan of the coöperative buildings has been changed. They no longer make their appeal chiefly to artists who want studios. They are planned for the ordinary well-to-do New Yorker who wishes to own his own residence, but who does not wish to incur the expense or responsibility of a private house. A man who pays even $30,000 for an apartment in one of these coöperative buildings obtains a pleasanter and more convenient residence in a neighborhood, where a private house would cost about double that sum, and it looks as if coöperative apartment houses might become a permanent element in the building economy of New York. Some of these enterprises, which have not been conservatively financed, may succumb to a period of hard times, when the scarcity of tenants willing to pay a rental of from $3,000 to $5,000 a year will force the stockholders to contribute a share of the expenses of their buildings, but for the most part the method whereby these enterprises have been financed is sound and should stand the test of a few comparatively lean years.

It is very much to be hoped that the coöperative apartment house will continue permanently to be a residential resource for well-to-do New Yorkers. Not only do they enable people of taste to live more comfortably for less money than it is possible in any other way, but they make for a better standard of apartment house design; and a better standard of apartment house design is something which is very much needed. American architecture has some more and some less promising aspects, but on the whole perhaps its least promising phase is the design of apartment houses. The architecture of sky-scrapers may not be adequate in originality and daring to the engineering audacity which is embodied in their structure; but at its best their design assuredly exhibits an intelligent approach towards an appropriate solution of a difficult problem. A steady improvement can also be traced in the design of the average factory and warehouse, even though this improvement still leaves much to be desired. As to domestic architecture, that is, in the opinion of the writer, quite the most promising and progressive department of American architectural design. This promise does not, indeed, extend to those private dwellings which are erected in rows by speculative builders, but wherever residential design is being confided to architects in good standing, a constantly better result is being achieved. In respect to the design of apartment houses and tenements, on the other hand, there are no corresponding signs of improvement. They constitute as a class the most objectionable variety of buildings erected in this country, and hence the welcome which should be given to any movement which makes in the direction of improvement.

Apartment houses are afflicted also with the same original sin as that which condemns to perdition the private dwellings erected in rows. They are erected almost exclusively by speculative builders; and whenever the fate of a certain type of building is confided to the speculative builder, almost all hope of salvation vanishes. Wherever the speculative builder obtains sway, be it in the United States, in England or in France, he erects houses which are, from the point of view of architectural propriety, positively sinful. The conditions under which building is undertaken as a speculation seem to forbid, not merely a virtuous, but for the most part even a decent appearance.

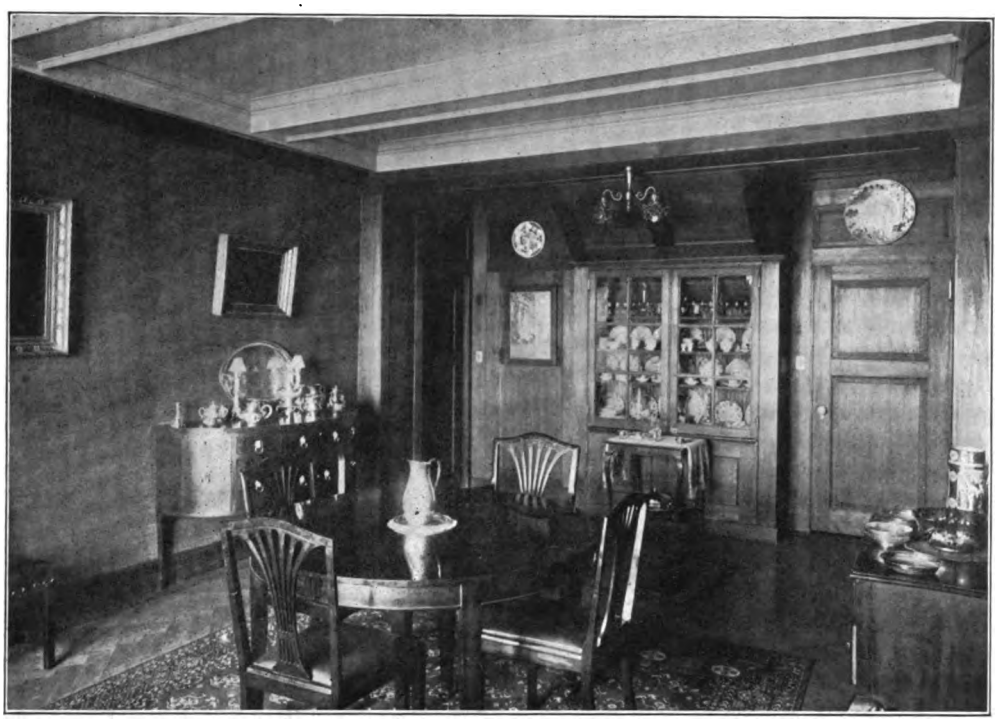
Of course, there have been some apartment houses in New York which have been built by private investors, who have entrusted their design to competent architects; but the number of such cases is so small that in the long run they do not count. Out of the thousands of apartment houses which have been erected in New York during the past thirty years, probably less than twenty-five have been designed by really competent

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SIXTY-SIXTH STREET STUDIO BUILDING—ONE OF THE TWO LARGE ENTRANCES.
66th St. and Lexington Ave., New York.

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APARTMENT "B"—DINING ROOM.



SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "B"—LIBRARY.
66th St. and Lexington Ave., New York.

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SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "B"—LIBRARY.
66th St. and Lexington Ave., New York.

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architects. They have been too scarce to exercise any corrective influence on their ill-mannered neighbors. The speculative builder has not been obliged to consider the competition of such buildings. He has been free to go his own way, in obedience to certain economic conditions, of which he was the willing but helpless victim. In only one field has he been obliged to face a kind of competition which necessitated the erection of better looking buildings. A certain number of three and four story apartment houses have been erected on the margin of the large middle western cities, which have some propriety of plan and appearance. In spite of the fact that they are the work of speculative builders, they often look like houses in which a gentleman and his family could live without æsthetic and domestic discomfort. The trouble is that their builders have to compete with a good class of suburban private house. Their prospective tenants, that is, have a choice, and the builder has to erect a class of apartment house which people of some taste would prefer to a house of their own.

But in New York the only competition which one speculative builder has to fear is that of another man situated in the same economic position as himself. A family of ordinary means which either prefers to live in the heart of the city or is obliged to do so, has no choice but to occupy an ordinary apartment. They necessarily become the victim of the regular speculative builder, just as the builder himself is the victim of certain intractable economic conditions. The high level of land values is at the root of the difficulty in both cases, as it is at the root of most of the ills of the urban resident.

These economic conditions are so very peculiar in their nature and so deplorable in their architectural effect that they are worth a short description. Expensive land demands, of course, the erection of tall buildings; and tall buildings require for their economical construction the employment of large amounts of capital. Furthermore, the enormous number of apartment and tenement houses which have to be erected every year in New York demand the services of a correspondingly large number of builders, very few of whom control as much capital as they really need. Their operations are, consequently, conducted to a much larger extent than is either safe or economical upon borrowed money. The majority of speculative builders in New York are obliged to face the disadvantages incurred by business men with bad credit. Because of their credit everybody with whom they do business charges an additional profit so as to cover the additional risk. His land costs him more than the market price. His building loan costs him a high rate of interest, a commission and a bonus. The building material dealers and the sub-contractors charge him the top prices. At no stage in his operations is he in a position to finance his enterprise in an economical way. At every stage he is, as it were, fighting for his solvency, and he is willing to take such chances because, in case he pulls it off, he makes an enormous profit on the few thousand dollars he risks. The result inevitably is that he builds the cheapest and flimsiest structure which the law or the inspectors allow. The average apartment house is planned almost exclusively for the purpose of securing as many rooms as possible in a given area; and they are designed for the purpose of seeming to be something very much better than they are. The buildings must have an amount of architectural pretension and ornament, proportionate to the rentals exacted, but such ornamentation is, of course, merely the tribute which vice pays to virtue. It is almost always cheap, showy and wasteful, even in comparatively expensive fire-proof buildings; and it wholly ignores the fundamental requirements of good design.

The reader should now be in a position to understand both why these coöperative apartment houses can be profitable and why they should exercise a wholesome architectural influence. A coöperative apartment house company is in a position to build economically. It pays cash for its land. Its building loan can be negotiated on much better terms. It can obtain the lowest prices from the

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SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "C"—STUDIO.
66th St. and Lexington Ave., New York.

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APARTMENT "C"—LIVING ROOM.



SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "C"—STUDIO AND LIBRARY.
66th St. and Lexington Ave., New York.

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sub-contractors, and whatever profit there is in the enterprise accrues to the company. Its subscribers, consequently, are in a position to get more for their money than is a man who rents an apartment or who buys a private house. Their interest demands, not only a well-constructed building, but a well-planned one. They are erecting residences for their own comfort and convenience, and they naturally require well-lighted, well-shaped and, so far as possible, spacious rooms. Moreover, being people whose taste is better than the average, they will naturally object to the impropriety and vulgarity of marble halls and the other stock-in-trade of the speculative builder. Their tendency has been to keep the entrance of the building and its public places simple, substantial and quiet in appearance, like the entrance to the average apartment house in Paris, and, if these coöperative apartment houses continue to be built, they are bound to have a corrective influnce on buildings erected for a similar class of tenants under ordinary speculative conditions. The builder who is successful will have to offer to the public apartments which have some of the advantages of these proprietary buildings.



SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "C"—DINING ROOM.
66th St. and Lexington Ave., New York.

III.

One of the advantages with which the coöperative apartment house started was that of a plan which was particularly well adapted to the purposes of a studio building; and as this plan had much to do with the success of the original buildings, it demands some description. The

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object of the plan was to combine successfully a big studio, at least eighteen feet high, with a suite of living rooms, which were necessarily smaller in area and lower in height. The studio, of course, had to have a north light and a huge window. These various requirements were met by purchasing a plot 75 x 100 on the north side of the street. The area so obtained was cut in half by the entrance and the halls; and a series of seven studio apartments were proposed in each half. Every one of these apartments had a studio eighteen feet high on its north side, while on the south side were obtained two tiers of living rooms, each less than half the height of the studio. On the lower floor was a study, a dining-room and a kitchen, and on the upper as many bedrooms as the proprietor cared to squeeze into the space. All these rooms faced full south, and consequently obtained as much sun as the weather allowed. There were certain other complications in respect to the plan upon which it is unnecessary to dwell. The distribution of space indicated above was the characteristic of the apartments which appealed to painters, and which had much to do with the success of these early enterprises.

The plan, however, had certain defects, which, as the movement spread, were bound to make trouble. The living rooms in the front of the apartments were low and small. The space devoted to the accommodation of servants, which was adequate for an artist's family, was sometimes insufficient for a tenant who was paying a rent of $2,300 a year. The single bath-room was deemed insufficient by many people, and the requirements of the hall made the wall of the studio on that side cut in at a bad angle. Moreover, when the necessity arose of erecting the buildings on an avenue rather than a street, the plan came very near to breaking down, because avenue lots in New York face east and west instead of north and south. The consequence was that the plan was modified little by little to meet the necessities of lots with different exposures and of tenants with different needs. A plot, for instance, was purchased at the northeast corner of 66th Street and Lexington Avenue which measured 100 feet on the avenue by 160 on the street. This plot was divided into two lots, each 80 x 100, and the series of apartments erected on the lot further removed from Lexington avenue resembled in plan those built on West 67th Street, whereas that part of the building which faced to both west and north had to undergo radical modifications. In certain apartments the studio was entirely abandoned, while in all of them many changes were made in details.

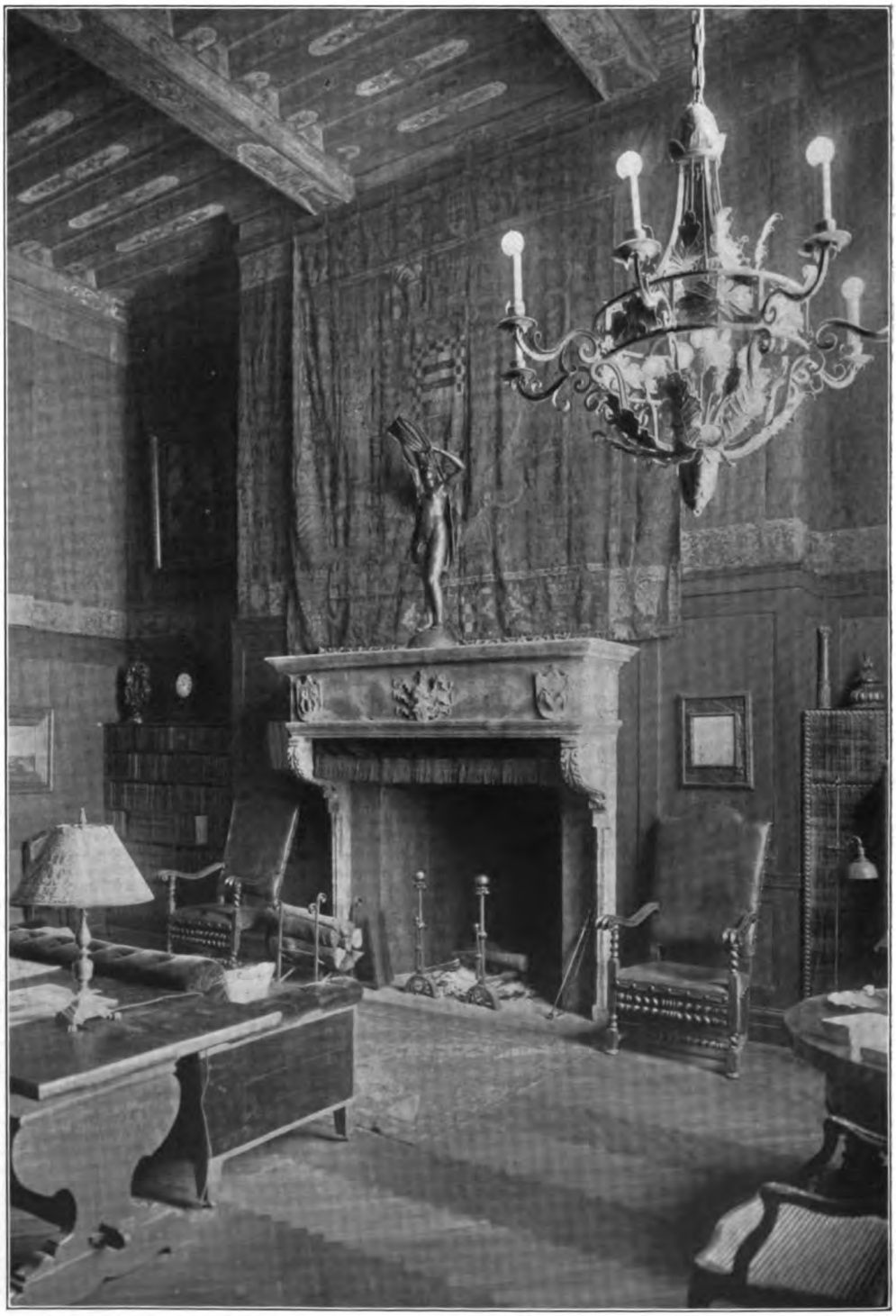
The plans which we reproduce herewith are those of one floor in the house at 66th Street and Lexington Avenue. The dimensions and the height of this building enabled the architect to do away with some of the defects of the earlier building. The additional five feet contained in the 80 x 100 lot was of some assistance in enlarging the living rooms in the front of the apartments; and the height of these rooms was also somewhat increased. The angle at which one of the studio walls in the west side buildings cut in was dispensed with, and the looks of that room thereby much improved. These changes made the apartments more habitable; but they did not do away entirely with the difficulties raised by the old plan. For a small family who lived in a modest way the plan was well adapted; but families who pay a rent of $3,000 and more a year do not always live in a modest way. For such families there was a lack of servants' rooms and bath-rooms, and it was obvious that if the price of these apartments were to continue to increase, something radical must be done to adapt them to the needs of families who could afford to live more generously. And the only means whereby such a result could be accomplished would be to do away with the studio. In the original plan the studio was the main feature, because the apartments were intended for painters; but when the price of the apartments became so high that the average painter could no longer afford them, the need of a big studio no longer dominated the whole plan. The tendency has been to convert

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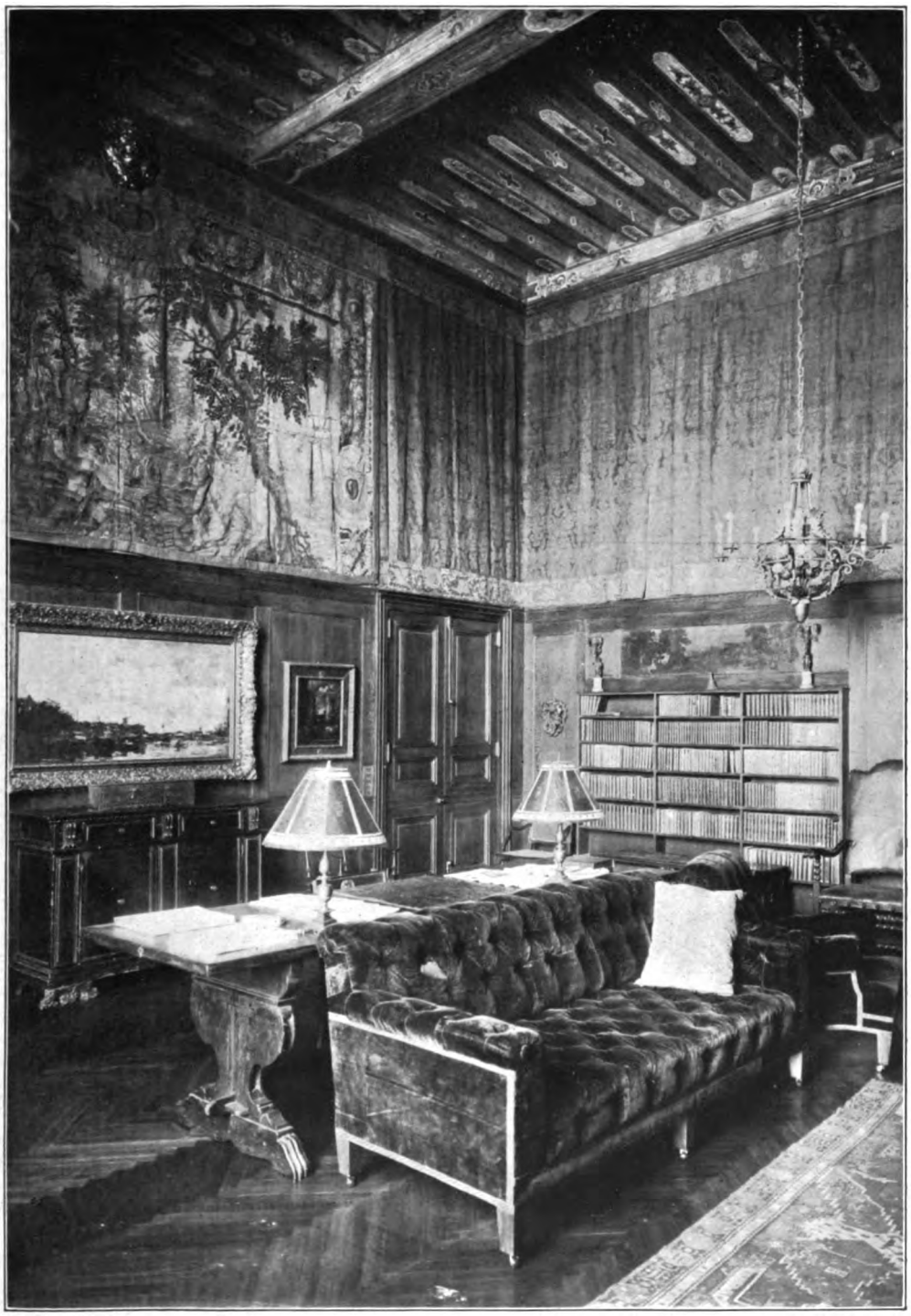
SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "C"—PRIVATE STAIRCASE.
66th St. and Lexington Ave., New York.

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SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "D"—STUDIO AND LIBRARY.
66th St. and Lexington Ave., New York.

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SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "D"—STUDIO AND LIBRARY.
66th St. and Lexington Ave., New York.

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them into ordinary duplex apartments, planned so as to afford more space for servants and bath tubs, but minus the big, spacious studio.

Such a change was inevitable as soon as the apartments passed beyond the means of the average painter; and the omission of the studio has undoubtedly tended towards a more economical use of the available space. It may be doubted, nevertheless, whether the two-storied apartment will ever possess the charm and the interest which are characteristic of the studio apartments. With all its minor defects the original plan had certain extraordinary merits. To a person accustomed to the ordinary New York apartment or even to the ordinary New York house, its effect was positively exhilarating. It provoked such a feeling of amplitude. It was supplied with such an abundance of light and air. It was so big and yet so intimate, so spacious and yet so economical, and the studio made a most admirable living-room. As a matter of strict architectural proportion, the room was too high for its area; but its height, which would have been disagreeable in an ordinary apartment, was naturalized by the fact that the room was a studio. It was lighted by a huge north window, and with its abundance of even light and its spacious dimensions, it gave one the sense of being a room in the country rather than in the city. We know of no apartments or houses in New York which compare to these studios in the opportunities which they offer to a family of moderate means of a pleasant, wholesome and genial domestic surroundings.

The architectural merits of the first of these studio buildings were negative rather than positive. They escaped the errors in taste which were characteristic of the ordinary apartment house, without, however, attaining on their own part any peculiar merit. Their exterior design was decidedly neglected. It obtained a little more attention in each succeeding building, but it did not become of any interest until the first building was erected on the east side. More thought was given to the design of the entrance-hall, which, while not being made really attractive, was kept, as we have said, substantial and simple in effect. In one of the earlier buildings some money was wasted on unnecessary wall paintings; but this error was not repeated. For the most part the subscribers to these buildings spent as little as possible on the architecture of the façade or of the entrance. They preferred to keep their money for the decoration of their own individual apartments. In the later buildings, on the other hand, the tendency has been to spend rather more freely upon the public appearance of the building. The apartments in these structures lease for $3,000 a year and over; and their tenants naturally require a standard of good looks proportionate to the rentals they are paying. The first coöperative apartment house in which this higher standard is embodied is the one illustrated herewith at the corner of 66th Street and Lexington Avenue. The design of its façade was entrusted to Mr. Charles A. Platt, and the proprietors had no reason to regret the selection. Mr. Platt has made his reputation as the architect of private houses, but he has not failed to exhibit in the architecture of this façade the qualities which give a peculiar character to his private dwellings. This apartment house is distinguished among similar buildings in New York by the breadth and dignity of treatment and the refinement of its detail.

The stone, of which the building is constructed, contributes essentially to its dignified appearance. Doubtless it would have been possible to use brick and still obtain a fairly decent effect; but there can be no doubt that a building of such considerable height and dimensions should, when devoted to residential purposes, be constructed of stone, and the warm gray stone which has been used in this instance is not only dignified in effect but attractive in surface and texture. Moreover, the architecture of the façade has been so managed that the benefit of a substantial material has been preserved. The great difficulty in the design of an apartment house or a hotel

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is to prevent the walls from being cut into shreds by the necessary multiplicity of the windows; but in this instance Mr. Platt has managed to group his openings so as to give the walls a certain solidity and distinction of appearance. In order to appreciate the effect of this distribution one has only to compare it with that of the façade immediately adjoining on the north, which is built of the same material and is of the same height, but in which the windows have not been similarly grouped. The more southerly building is both more dignified and more distinguished in appearance. It suggests, remotely but still palpably, the admirable Italian tradition of palatial street architecture.



SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "D"--DINING ROOM.
66th St. and Lexington Ave., New York.

The façade of the 66th Street building has been allowed to make its effect chiefly by the solidity of its material and the distribution of its openings. What detail there is has been boldly but sparingly applied. Some exception may be taken to the treatment of the cornice and of the entrances; but for the most part the detail has been used to emphasize the effect of style, which the façade possesses in such a high degree. The window-boxes, for instance, help to fix the residential character of the building and to give it the added touch of almost personal refinement, which is appropriate even to a dwelling occupied by many families. The lower halls have been finished in Caen stone, like those of a French apartment house, and simple in treatment and spacious in effect. The upper halls have been kept, as was appropriate, severely simple; but they are

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well lighted and not unattractive. In all its public parts the building is characterized by a strictly economical propriety of treatment.

The illustrations of the different studios, living-rooms and dining-rooms contained in certain of the private apartments will give the reader an idea of the opportunity which these rooms offer for attractive treatment. They have been designed in many different ways, beamed and painted ceiling and the large bronze figure on the mantelpiece. This room is paneled up to the line of the top of the doorways, the space above being hung with a fabric. It is worth most careful examination in all its incidents; and it is a pity that the illustrations cannot do it more justice. It is one of the few rooms in New York City which combines an organic architectural design with the utmost intimacy and charm of



SIXTY-SIXTH STREET STUDIO BUILDING.
APARTMENT "D"—LIVING ROOM.

according to the taste and preference of their owners. In the case of the studios the object of the design has usually been to lower somewhat in appearance the height of the apartment, while in the smaller living rooms and dining-rooms, on the other hand, the attempt has been frequently made to get rid, so far as possible, of the sense of a somewhat low ceiling. The attention of the reader is particularly called to the studio, with the effect. It is one of the few rooms in New York which can be described as beautiful in the full meaning of that exacting word; and it is beautiful because everything in the room, as well as everything about it, has been selected and arranged with an absolute certainty of taste to produce an effect, which derives its individuality from its rich and flawless completeness.

A. C. David.

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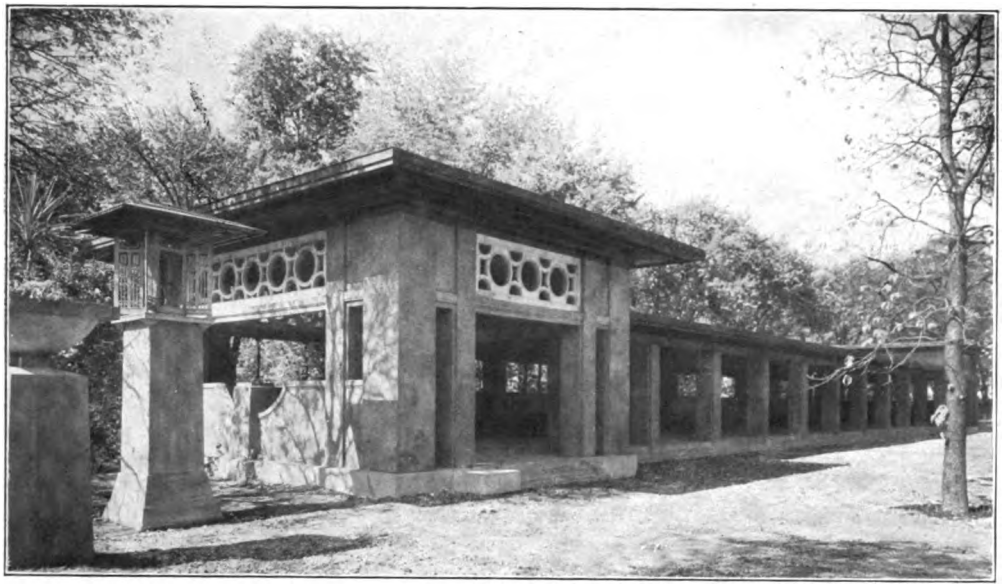
Chicago Parks and Their Landscape Architecture

If there is any aspect or expression of their municipal life which awakens the pride of urban Americans it is usually the local park system. Our cities have been niggardly in some respects, corrupt in many respects, and short-sighted in almost every respect; but in the provision which they have made for playgrounds and parks they have usually been liberal, far-sighted and even disinterested. In the Dark Ages of American municipal government before the war, New York had the good sense to purchase Central Park, almost in the heart of Manhattan Island; and early in the eighties, when municipal reform was from the popular point of view a "fad of the Mugwumps," the city appropriated $10,000,000 for the acquisition of an enormous park area in what is now the Borough of the Bronx. Boston begun to make proper provision for a park system at a later date, but it has fully made up for its early neglect by the liberality and intelligence which of late years has been shown in this respect. The park system of Boston's metropolitan district is the highest and most mature expression of the civic life of that city. Other smaller places, such as Cleveland, Baltimore, St. Louis and San Francisco have shown the same kind, if not the same degree, of public spirit and far-sightedness in this matter; and they have frequently been very much helped in providing for the future health and happiness of their residents by liberal donations of land on the part of public-spirited citizens.

No city in America has, however, spent money more freely and more consistently upon its parks than has Chicago. Very early in its history a magnificent system of boulevards and parks was laid out, one which in area went far beyond the immediate needs of the city, and which in scope and plan was decidedly in advance of other American cities. This was all the more remarkable because in many respects Chicago has adopted a niggardly and a narrow municipal policy. Its miserable pavements, its ill-kept streets, and its slovenly municipal service makes it look for the most part like an overgrown village; but its park system has been planned and provided for in a genuinely metropolitan spirit. The various park boards have been furnished with large revenues, independent, to some extent, of the municipal government; and by means of these revenues they have controlled the expenditure of an amount of money, which has enabled them to adopt a most liberal and progressive policy. This independence on the part of the park boards may not be in all respects a wise method of organizing such a service; but it has accomplished good results in Chicago. If the several park boards had been less independent they would undoubtedly have been less liberally provided with money; and they would never have rendered such great services to the city.

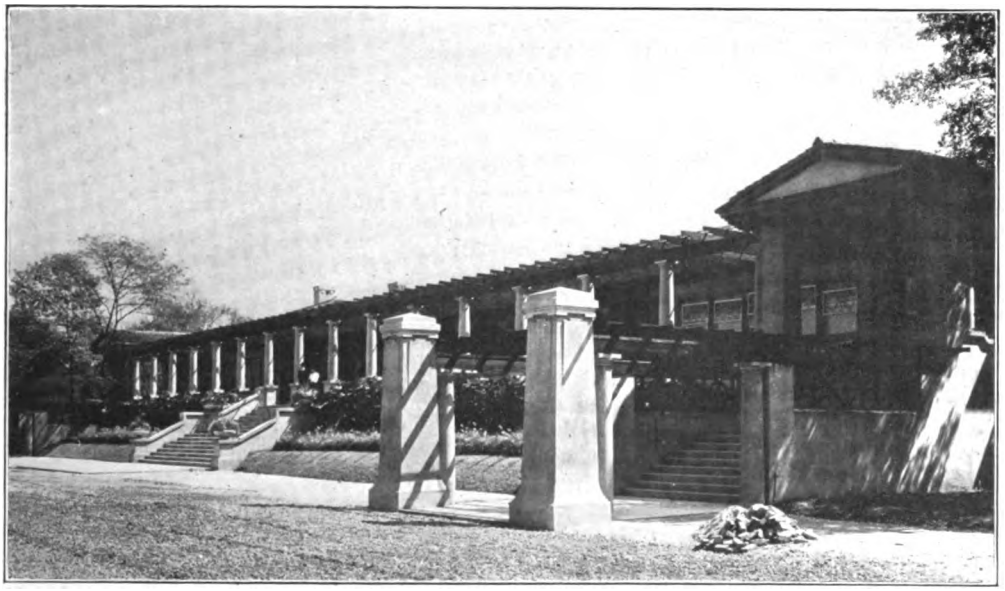
The park boards in Chicago have not only spent a great deal of money in laying out large areas of land for park purposes, but they have also very wisely spent money in making these parks genuine places of recreation. They have been extremely liberal, that is, in providing lakes and buildings in the several parks which have tempted the poor people living in the neighborhood to use the park much more than they otherwise would. The idea apparently has been to convert the parks into a series of country clubs for the poorer people. All of them are furnished with abundant water, which affords an opportunity for rowing, swimming and other kind of acquatic sports. Both indoor and outdoor gymnasiums have been built, which are thrown open to everybody on the most liberal terms. There are even covered and heated swimming tanks which can be used during the winter.

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SHELTER IN HUMBOLDT PARK.

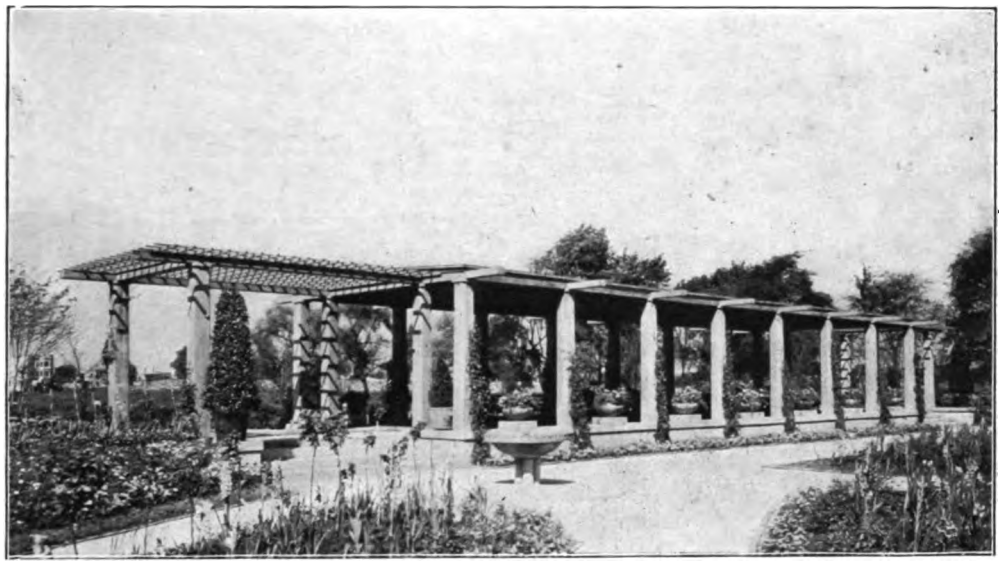
Chicago, Ills. Richard E. Schmidt, Garden & Martin, Architects.



IN DOUGLAS PARK.

Chicago, Ill. W. C. Zimmermann, Architect.

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PERGOLA IN HUMBOLDT PARK.

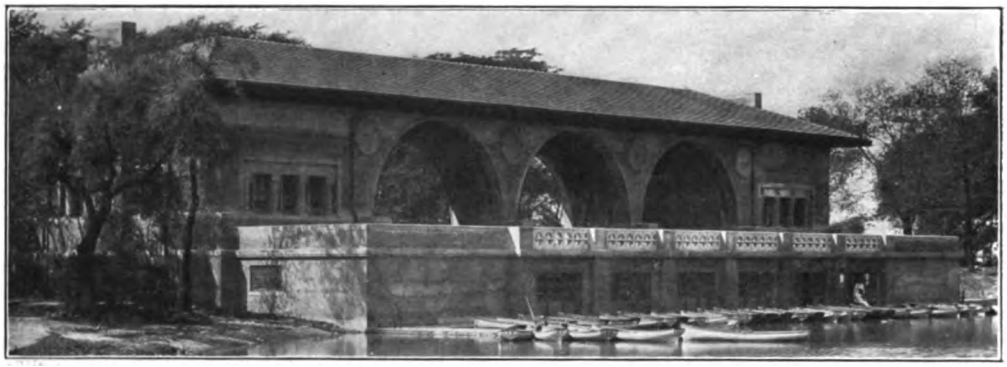
Chicago, Ills. Jens Jensen, Architect.



THE STEPS AND DRINKING FOUNTAIN AT THE ENTRANCE TO THE ROSE GARDEN OF HUMBOLDT PARK. THE DRINKING FOUNTAIN IS REACHED FROM THE UPPER LEVEL AND IS CARVED OUT OF A SINGLE PIECE OF GREY STONE. THE LARGE URNS ARE OF GREEN TECO WARE.

Chicago, Ills. Jens Jensen, Architect.

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BOATHOUSE IN HUMBOLDT PARK.
Chicago, Ills. Richard E. Schmidt, Garden & Martin, Architects.

Nor is this all. Many of the parks have been provided with club houses, reading rooms, a dance-hall and various assembly rooms. Any association in the neighborhood can obtain the use of these rooms merely by registering its name in advance for a particular date; and the consequence has been a great encouragement of innocent and wholesome social gatherings among the poorest portion of the city's population.

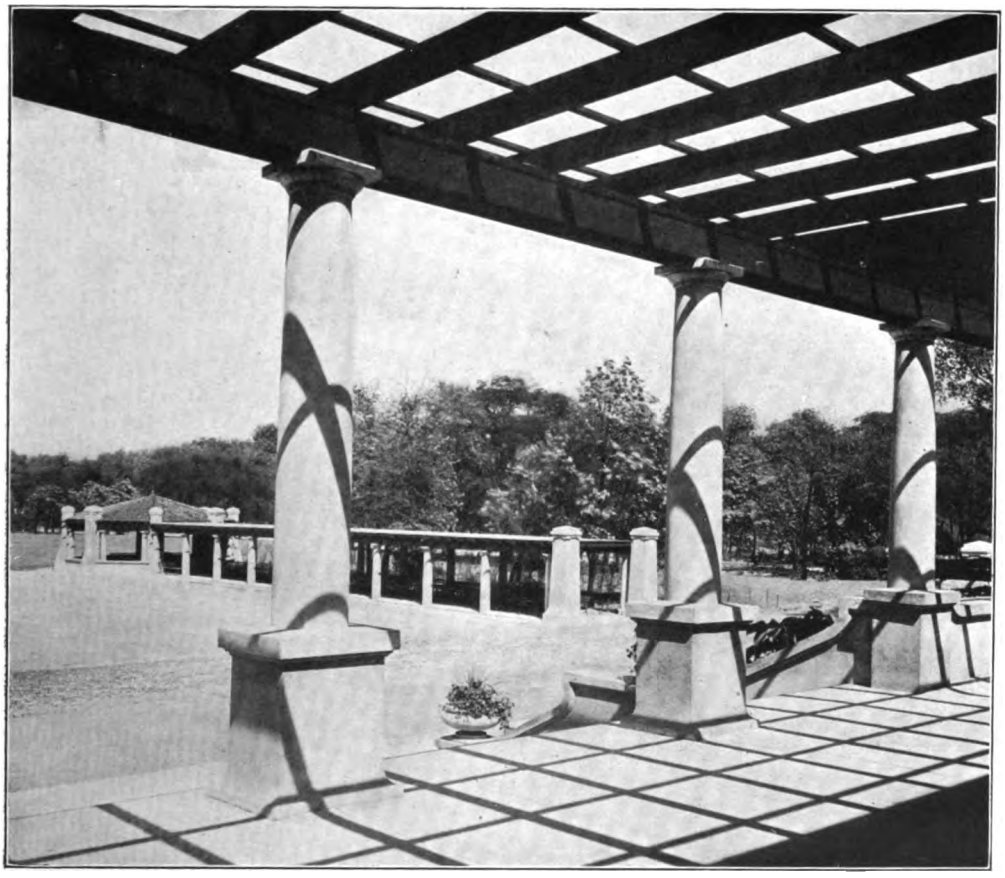
The South Park Board has been particularly liberal in this respect. During the past ten years it has purchased and laid out fully a dozen small parks in the districts inhabited exclusively by the poor. These parks are not only unusually large, compared to the corresponding parks which have been opened up in the New York tenement house districts, but they are infinitely better provided with means of wholesome recreation, and they are really adequate for their purpose. Throughout the whole vast tenement house neighborhood on the lower East Side in New York, which is inhabited by more than 500,000 people, there are only three or four small parks, which means, of course, that an insignificant section of the population can possibly obtain any benefit from them. In Chicago, on the other hand, the poorer parts of the South Side, which are not at all as densely populated as is the East Side in New York, have been provided with three or four times as many parks; and these parks have been furnished with a much more complete equipment of buildings and other means of recreation. The consequences are that in Chicago these small parks really fulfill their purpose. They are used by swarms of young people of both sexes; and there are so many of them that nobody who enjoys wholesome sports and innocent recreation need be deprived of these advantages.

The interest, however, of these improved parks from the point of view of an architectural magazine consists, of course, in the architectural opportunities offered by such improvements. As the result of the erection of so many buildings, the newer parks of Chicago are beginning to have a more architectural lay-out. The ordinary American park has always been planned according to informal and naturalistic methods of landscape design, and for the most part no exception need be taken to the use of such methods for such a purpose. But the American landscape designers have applied their naturalistic methods too rigorously. More formal lay-outs are frequently desirable in the neighborhood of the entrances and in the neighborhood of all buildings which a park may contain. Central Park, in New York, is, for instance, a very charming example of informal landscape design; but its charm would not have been diminished, while its effect would have been much improved, provided the boundaries and entrances had been made architecturally more interesting, and provided buildings, when they were

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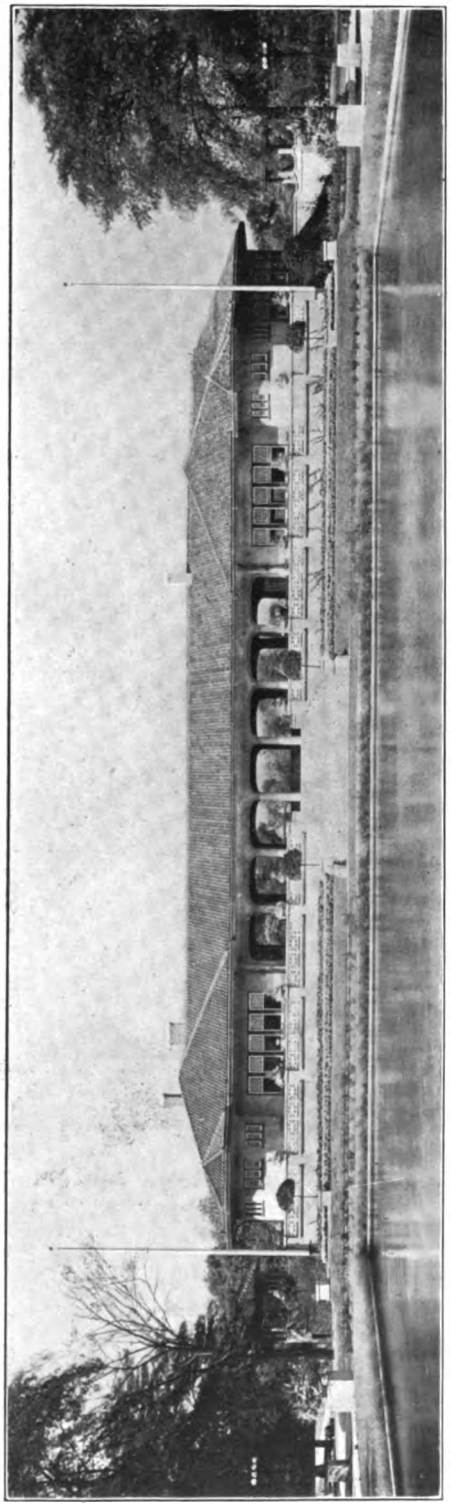


BOAT AND RECREATION HOUSE IN HUMBOLDT PARK.
Chicago, Ills. Richard E. Schmidt, Garden & Martin, Architects.



PERGOLA IN DOUGLAS PARK.
Chicago, Ills. W. C. Zimmermann, Architect.

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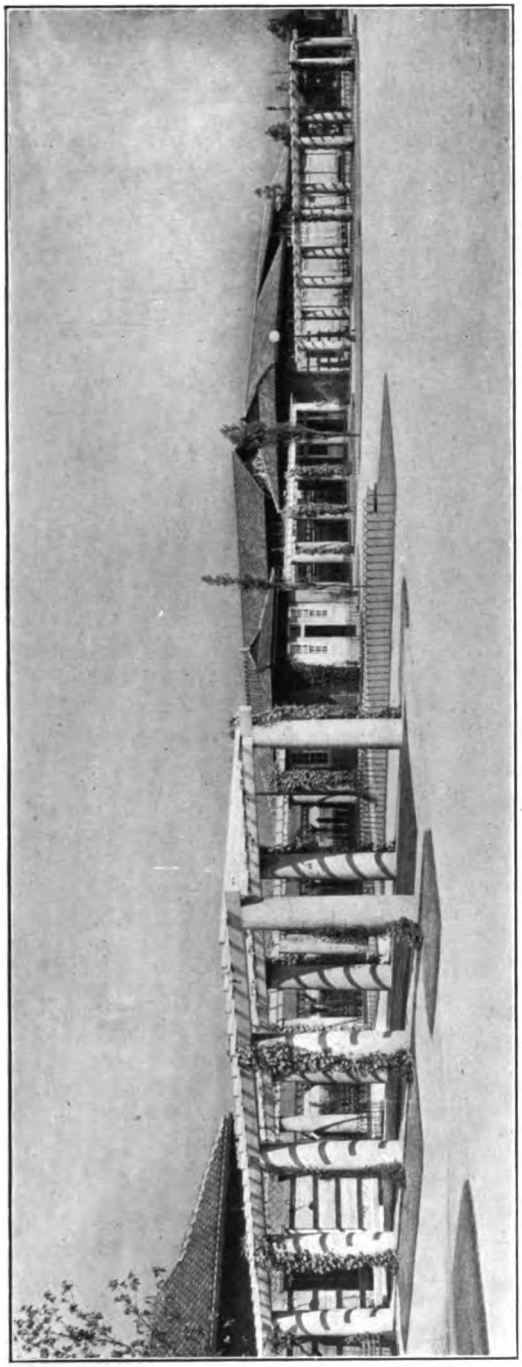
VIEW TOWARD BASIN.

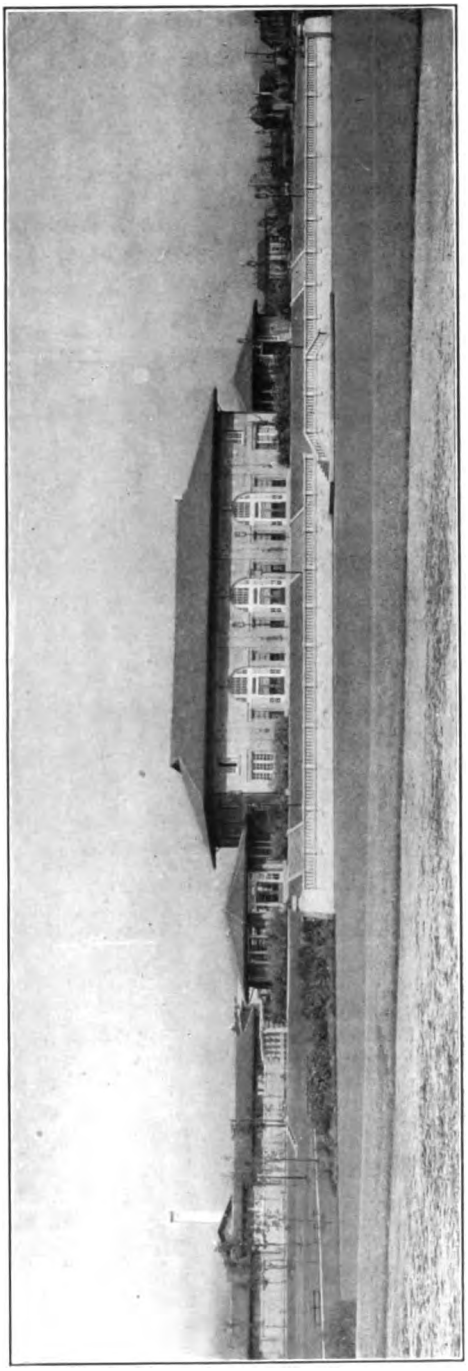


PARKSIDE VIEW—RECREATION PAVILION IN GARFIELD PARK. W. C. Zimmermann, Architect.

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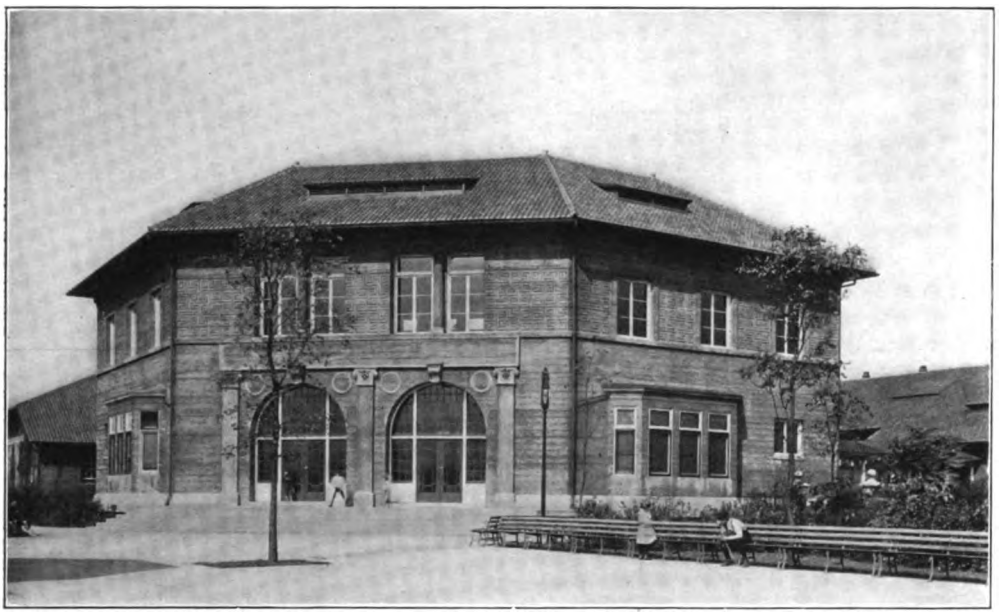
PARK BUILDING IN SHERMAN PARK.

D. H. Burnham & Co., Architects.

Chicago, Ills.

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erected, had been made the culminating feature of an architectural lay-out of the immediate natural surroundings. Nothing could be more ineffective and dull than the manner in which the Metropolitan Museum of Art has been situated and approached; and the Metropolitan Museum is only one of a number of such instances. The improved methods of landscape architecture which are being so generally used on private estates have as yet found but few illustrations in the designing of our public parks.



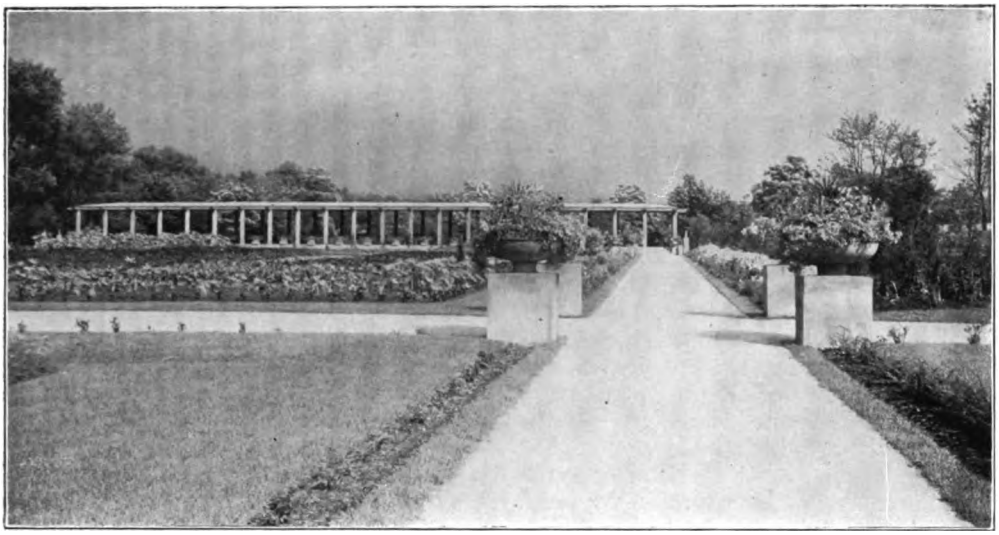
PARK BUILDING IN ARMOUR SQUARE.

Chicago, Ills. D. H. Burnham & Co., Architects.

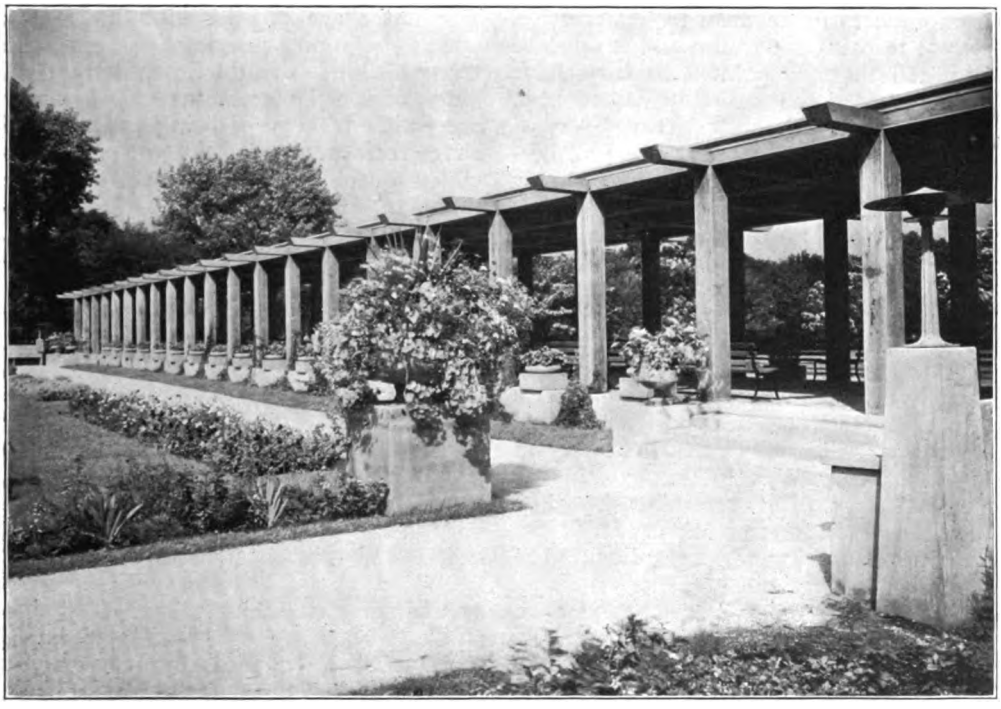
In this respect Chicago is palpably in advance of New York. The buildings which have been erected in the new parks by the several boards have been entrusted to architects in good standing; and these buildings have been made the feature of an interesting lay-out of the immediate natural surroundings. The Architectural Record presents herewith a number of pictures which will indicate the architectural interest of some of this work; and it cannot be too often repeated that good architectural design is of quite as much importance in our parks and school houses as it is in our public squares. The effect of a good building, in which an untrained boy studies or plays, is far more insidious than is that of some imposing, but remote, public monument. The young people of Chicago spend many of their happiest hours in and around the buildings which are illustrated herewith; and such surroundings cannot fail in the long run to make for a higher standard of public and private taste.

The buildings erected in the smaller parks on the South Side are uniform in material and structure, and are very similar in design. Messrs. D. H. Burnham & Co., to whom the planning of all of this work was entrusted, are to be congratulated on the good sense and skill with which their task has been performed. Their problem was to erect in each one of these small parks a group of buildings which would possess architectural interest and propriety, without requiring the expenditure of very much money; and they have been entirely successful in meeting the conditions of this problem. The buildings have been

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GARFIELD PARK—LANDSCAPE TREATMENT LEADING UP TO SHELTER HOUSE.
Chicago, Ills. Jens Jensen, Architect.



DETAIL OF SHELTER HOUSE SHOWN ABOVE.
Jens Jensen, Architect.

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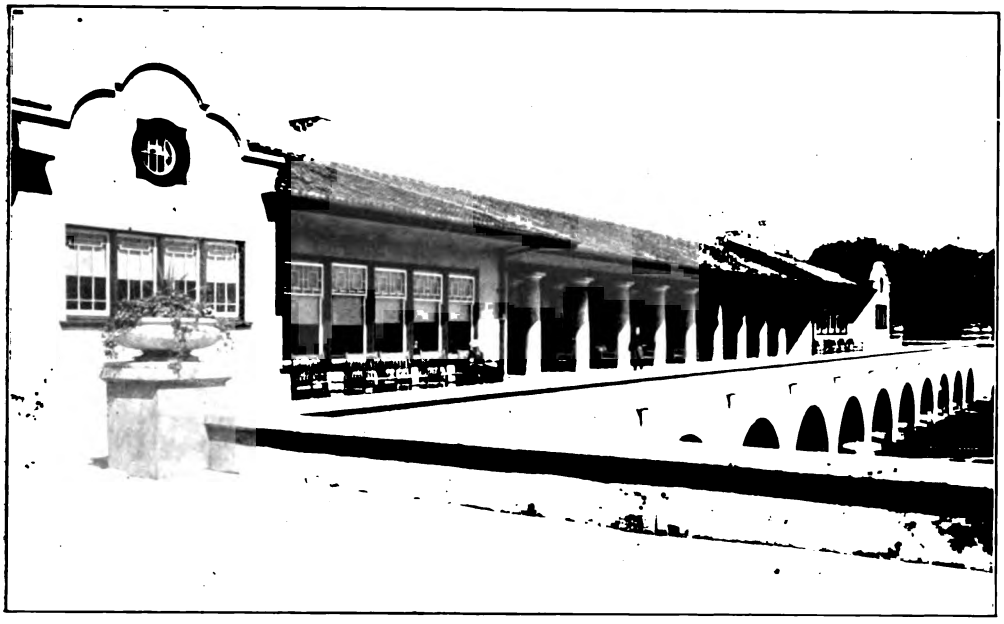
erected of concrete, and the tiled roofs with which they are crowned have been designed with a heavy overhang. Their general effect is, consequently, Spanish, and this effect is carried through all the details of the plan and the design. Ornament has been sparingly used, and when used it has been actually incorporated in the walls of the structure. The designs, that is, were all worked up in the wooden moulds; and they were, consequently, set in the cement. Of course, ornament obtained in such a manner must be simplified to the last degree, and must also be somewhat rough in execution. But extreme simplicity is the greatest virtue which buildings of this kind can possess, and the lack of ornamental refinement is assuredly no fault. These popular club houses had to be interesting and attractive, while at the same time being inexpensive; and the architects assuredly selected the best method of making them interesting at a small cost. The interiors have been subjected to a similar, but a less successful, treatment. In most cases nothing has been done to make them look attractive, except to paint the walls; and it must be admitted that the painted surfaces have not prevented the assembly rooms from remaining a tolerably dreary set of apartments. Their appearance will certainly do nothing to encourage gayety on the part of the people who use them; and inasmuch as they are occupied in part for festive gatherings, it is to be hoped that some day enough money will be appropriated to make them look a little more cheerful.

No scheme of decoration could or should be carried very far, because these rooms get hard usage, and because an external simplicity is as necessary in the interior as it is in the exterior of such buildings. But something should be done to make them look a little less forlorn—something corresponding to the simple mouldings, pilaster strips and ornamental patterns which have been so successfully used on the exterior walls.

The æsthetic emptiness of some of the rooms is, however, only a small blemish. In all the more essential respects these buildings have been admirably designed to fulfill an admirable purpose. Inasmuch as they are intended for popular use, and they had to be inexpensively built, it would have been very easy to make them look like charitable institutions—which is precisely what they are not. They are paid for out of funds derived from taxation, and the people who use them are getting the benefit from a wise expenditure of public money. They are entitled to club houses and grounds which are comely as well as serviceable; just as they would try (unsuccessfully, of course) to make a club house which they built themselves comely as well as serviceable. What they are entitled to in this respect they have obtained. These recreation buildings have been planned and designed with a propriety which is the architectural expression of a liberal and constructive social spirit.

The buildings, illustrated herewith, erected in Douglas, Garfield and Humboldt parks, were intended for a somewhat different purpose than those erected in the smaller parks on the South Side. The latter are popular club houses, in which the young people of Chicago can enjoy all kinds of athletic sports and all kinds of social recreations. The former are rather by way of being casinos, and have their analogies in the pavilions which a rich man might erect upon the shores of some small lake situated on his property. They are intended, moreover, not merely for the very poor, but for all sorts and conditions of people; and the means of amusement which they offer in the way of boats and restaurants, can be a source of income to the Park Board. They are, consequently, more elaborate in plan and design, and are constructed of more expensive materials; and they are much the best buildings of this kind which, so far as we know, have been built in the United States. They are not cheap and flimsy structures, such as would be erected on some private picnic grounds for the entertainment of the public. They are substantial buildings, surrounded by appropriate schemes of landscape gardening, festive in appearance, and carefully planned for the accommodation of large crowds of plea-

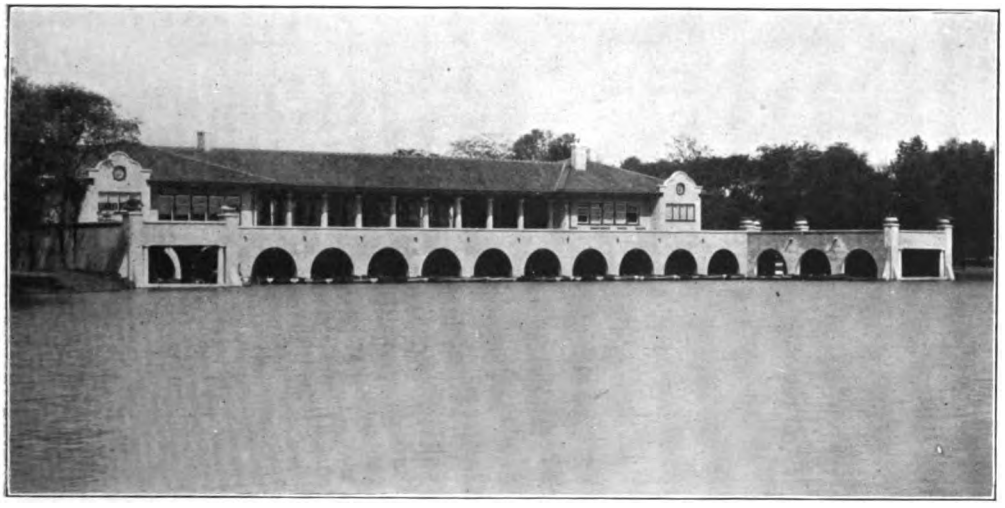
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DETAIL OF BOATHOUSE IN DOUGLAS PARK.
Chicago, Ills. W. C. Zimmermann, Architect.

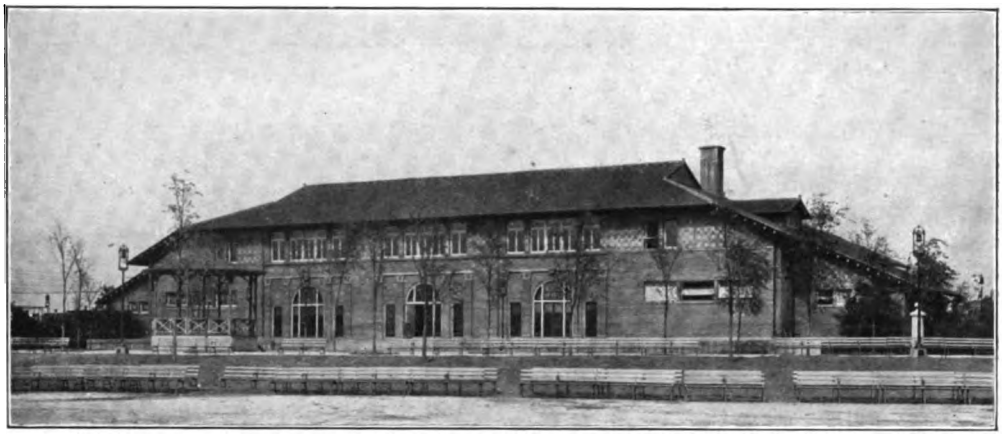
sure-seekers. When such buildings as these are compared with the casino in Central Park, New York, one begins to appreciate the progress which is being made in American architectural design.

Different as the buildings in Douglas, Garfield and Humboldt parks are in detail and appearance, they are all essentially alike in plan and general manner of treatment. They are situated on a body of water with a stone terrace, im-



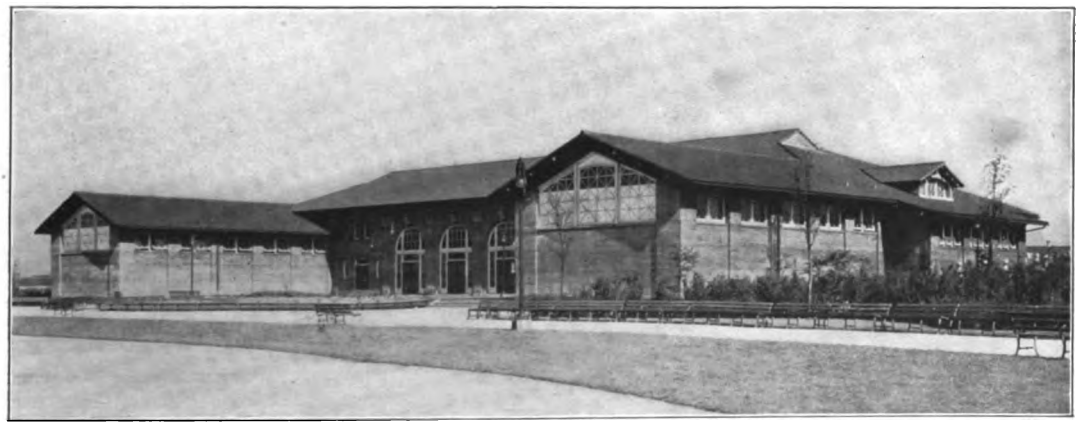
THE BOATHOUSE IN DOUGLAS PARK FROM ACROSS THE LAKE.
Chicago, Ills. W. C. Zimmermann, Architect.

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HAMILTON PARK.
Chicago, Ills. D. H. Burnham & Co., Architects.

mediately overlooking the pond. If the ponds are used for boating, as they are in two cases, the boats are reached on a lower level than the terrace, through the arches which support it. The people, consequently, who are enjoying a meal or a lookout in the building or on the terrace are not troubled by the coming and going of the boatmen. All of these buildings are long, low structures, approached through formal courts, and thrown open in their central division to promote the free movement of people who wish to pass through to the other side. The kitchens, the enclosed dining rooms, and, in general, the portions of the building devoted to service are situated at either end. This plan lends itself not merely to a convenient handling of the crowds of pleasure-seekers, but also to an appropriate and interesting architectural effect. It should be remarked, also, that each one of these buildings has its formal garden, in which people may sit and walk and enjoy the flowers, and which have been made tributary to the whole architectural scheme. Most assuredly Chicago is to be congratulated upon the possession of parks which are being adapted to popular entertainment in such a sensible and architecturally effective manner.



PARK BUILDING IN BESSEMER, SOUTH CHICAGO.
D. H. Burnham & Co., Architects.

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FIG. 1. "LES CHEVAUX D'APOLLON," BY ROBERT LE LORRAIN.

The House of the Four Cardinals

Of the many quarters of Paris where historic houses are to be found, and perhaps no city in the world is wealthier in ancient buildings, the Temple quarter undoubtedly possesses the greatest charm. It is a quarter of old houses with high-pitched roofs, spacious courtyards and fine staircases, houses which, in spite of their weather-beaten appearance, still retain something of their former grandeur, either in their elegant wrought-iron balconies, their massive doorways or their sculptured pilasters; a quarter of narrow streets and still narrower *ruelles,* formerly inhabited by the cream of French society, but now entirely given up to commerce. As you walk along its fascinating thoroughfares —the Rue de Sévigné, or the Rue des Francs Bourgeois, the Rue Vieille du Temple, or, it may be, the Rue des Tourelles—it is easy to recognize the old homes of the aristocracy; for they have a stateliness which is wholly lacking in the modern buildings of the neighborhood, notwithstanding that, in the majority of cases, courtyards are encumbered with wagons and merchandise, and entrances are crowded, at noon, with workmen and workgirls. Every twenty yards or so you meet these monuments of the 17th or 18th century, and the recollection of a name or a date connected with their history carries you back

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to those frivolous but delightful eras. Here, in the Rue de Sévigné, is the gem of them all—the mansion in which Mme. de Sévigné lived from 1677 to 1696—a fine specimen of Renaissance architecture which has escaped the sorry fate of less interesting dwellings of the quarter by being turned into a museum, the Musée Carnavalet. At no great distance away stand the Hôtel Soubise, now the National Archives, and the Hôtel de Rohan, which was used as the National Printing Works for nearly a century. Farther afield you will come across two houses the occupants of which, at the end of the 18th century, were frequent visitors to the last named mansion. These are the Hôtel d'Orvillers, at the corner of the Rue Saint Claude and the Boulevard Beaumarchais, where Cagliostro and his beautiful wife, Lorenza Feliciani lived, and the house of Mme. de la Motte at the corner of the same boulevard and the Rue Saint Gilles. And almost within a stone's throw is the square which was once the center of the best society of Paris, nay, of the world—the Place des Vosges, formerly the Place Royale. Under its solemn arcades are the entrances to many famous houses, such as the Hôtel Sully, the Hôtel Gueméné, the Hôtel Rotrou, the Hôtel Videix, and the Hôtel d'Aligre—deserted palaces which evoke the names of Mme. de Montespan, M. de la Rochefoucauld, La Trémouille, Lavardin, Lauzun and Condé.

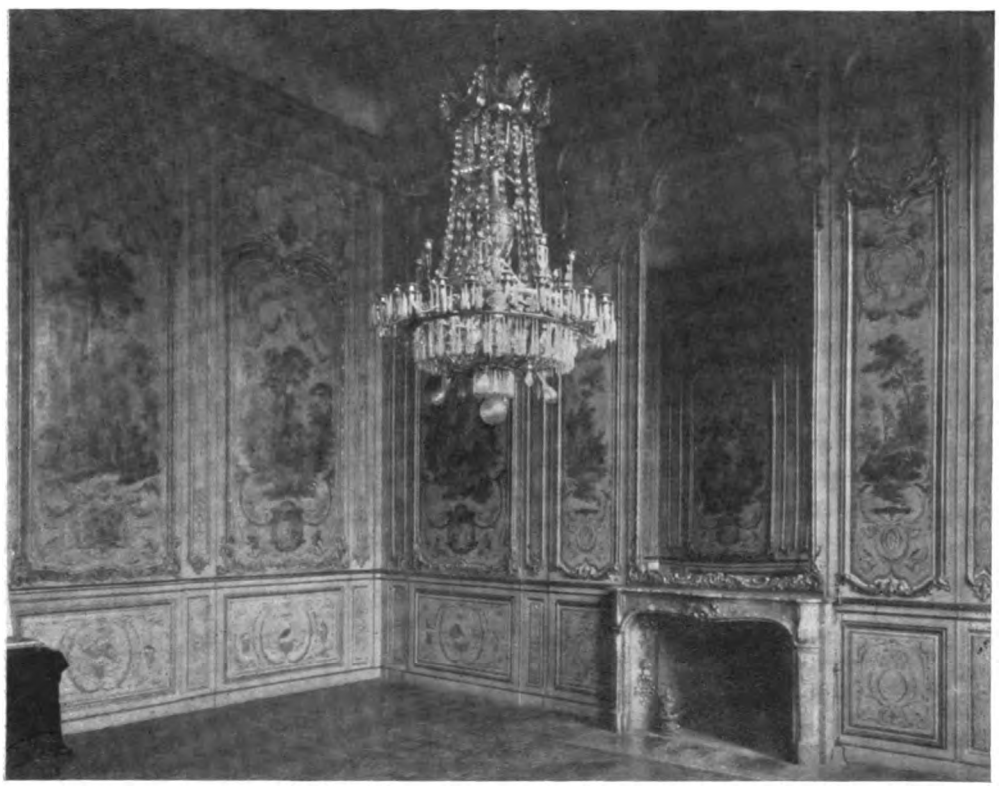


FIG. 2. THE "SALON DES SINGES," DECORATED BY CHRISTOPHER HUET.

Among these grand old buildings of the Temple quarter is one—the Hôtel de Rohan—which has particular interest for us, since its existence hangs in the balance. The National Printing Works is to be removed to more commodious buildings in the Rue de la Convention, at

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Grenelle; and a special commission has been appointed by the Government to decide the fate of the historic house where French official documents have been printed for so many years. Will it be pulled down? Are the paintings and sculpture which ornament it to be torn from their setting and dispersed to the four winds, as has happened so often in the case of ancient dwellings? Parisian archæologists hope not, and are thinking of means by which it can be saved. It has been suggested that the State and the city should share the land attached to the Hôtel de Rohan, using part as a site for much-needed additions



FIG. 3. "LA BALANCOIRE."



FIG. 4. LES BULLES DE SAVON.

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to the National Archives and part for the making of public gardens around the old mansion. One of the most congested districts of Paris, the Temple quarter, is badly in need of open spaces, and the carrying out of this suggestion would confer a great boon on the inhabitants. At the same time it would result in the preservation of a building which is interesting both historically and artistically.

The Hôtel de Rohan and the Hôtel Soubise, which cover almost the whole of the large piece of ground formed by the Rue des Archives, the Rue Vieille du Temple, the Rue des Francs Bourgeois, and the Rue des Quatre Fils have had so close a connection in history that to sweep away the one would be almost like doing an injury to the other. The land on which they stand was formerly the site of the Hôtel de Guise, which the Prince de Soubise, on purchasing it, decided to rebuild almost in its entirety, owing to the inconvenience of its buildings and the antiquated style of its architecture. He entrusted the work to Delamaire, a celebrated architect of the period, who had built the Hôtel de Duras and the Hôtel Pompadour, and the new house, the Hôtel Soubise, was completed before the prince's death in 1712. It was in this year that the same architect, employed by the prince's son, Armand Gaston Maximilien, Cardinal de Rohan, started building the Hôtel de Rohan, with its principal façade facing a large garden which was common to the two mansions. As soon as it was completed Armand de Rohan made it his official residence as Bishop of Strasburg, and such it continued to be, under the name of the Hôtel de Strasbourg and Palais Cardinal, until the end of the 18th century. Until 1803 it was occupied in succession by four Rohans, all of whom, curious to say, were cardinals.



FIG. 5. "LE COLIN MAILLARD."



FIG. 6. "LE CHIEN DRESSE."

In addition to Delamaire, Armand de Rohan called in the assistance of Robert Le Lorrain, an eminent sculptor belong-

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ing to the group of artists who had worked on the decorations at Versailles and Marly. Le Lorrain had also, between 1706 and 1712, decorated the Hôtel Soubise, and with such success that it was only natural he should be asked to contribute to the beauty of the new house. So, whilst the cardinal, who was an enthusiastic bibliophile, was enriching several rooms on the ground-floor of his palace with the splendid De Thou library, which he had purchased for 40,000 livres from President de Ménars, the sculptor set to work to decorate the pediment of his stables with that superb bas-relief—one of the glories of French sculpture—which can still be seen to-day as you enter the Hôtel de Rohan (see Fig. 1). The subject which Le Lorrain chose was Apollo's horses careering through the clouds. Aethon, Eous, Phlegon and Pyrois, made restive by the oppressive heat of the sun, have started off on a wild gallop in their master's absence. Eous dashes towards the earth; Phlegon proudly mounts towards the heavens; and Aethon, on the right, is about to flee when a young god seizes him by the mane. As to Pyrois, the central figure of this beautiful composition, he has momentarily stopped in his headlong course to refresh himself with a draught of the dew which a member of Apollo's suite holds out in a large shell. "Les Chevaux d'Apollon," which measures 3 m. 70 cen. in height and 4 m. 50 cen. in breadth, was executed between 1712 and 1719. It is in an excellent state of preservation.



FIG. 7. "LE MOULIN," BY FRANCOIS BOUCHER.

Notwithstanding the cardinal's appreciation of Le Lorrain's talent, there is reason to believe that Armand de Rohan had too great a love of books to possess a very pronounced taste for the arts. As

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far as we know, "Les Chevaux d'Apollon" was the only notable work of art with which he beautified his palace. The fact that his library, under the care of Jean Oliva, the celebrated bibliographer whom he had brought from Rome after attending the Conclave of 1721, was a literary center for his *confrères* of the French Academy and other *savants* of the day was enough for him. It was his grand-nephew and successor to the Hôtel de Strasbourg, Cardinal Armand de Soubise, who came into possession of the house in 1749, who was to embellish it with those exquisite paintings and decorations which are still to be seen in its rooms. The indispensable Blondel,* writing in 1752, tells us, in fact, that "since Monsieur le Cardinal de Soubise has occupied this mansion, all the rooms on the first floor have been newly decorated with extraordinary magnificence," and, after referring to their beautification with "paintings, gilding, mirrors, and furniture in accordance with the most modern taste," he mentions the names of Brunetti and Huet. This is almost proof positive that these two painters were employed by Cardinal de Soubise and not, as has been stated, by his predecessor. Christophe Huet's decorative panels in what is now known as the "Salon des Singes" were, therefore, executed about 1750 (see Fig. 2). They are in his well-known graceful and fantastic style, a style all his own, which was in great favor during the latter part of the 18th century. As their principal motif, they represent children's games and outdoor pastimes. There are six broad panels (4 m. 35 cen. in height by 1 m. 55 cen. in breadth) and six narrow ones (4 m. 35 cen. in height by 80 cen. in breadth). The former depict "Le Bal



FIG. 8. "LA MARE," BY FRANCOIS BOUCHER.

*L'Achitecture francoise, par J. F. Blondel. Paris: 1752-1756; 4 vols. in folio.

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FIG. 9. CARDINAL DE ROHAN—MONTBAZON'S CLOCK.

Chempêtre," "Le Chaudron," "Le Chien Dressé," "Le Charmeur," "Le Mât Horizontal" or "La Chandelle," and "Le Colin-Maillard"; the latter, which are decorated with quaint designs of creepers, cornucopias, garlands, butterfly wings and Chinese hats, "Les Bulles de Savons," "Tête-bêche," "La Balançoire," "Les Cartes," "Le Seut de Mouton," and "La Raquette" (see Figs. 3, 4, 5 and 6). The wainscoting is decorated with flowers, birds, creepers, shells and arabesques. Many mansions of the period were decorated with similar "Chinoiseries" and "Singeries." At the Château de Chantilly are some very fine examples of Huet's work. The late Duc d'Aumale was an enthusiastic admirer of this painter and particularly of the charming compositions in the "Salon des Singes." On the occasion of one of his visits to the National Printing Works, he said to the late M. Arthur Christian, who was then the Director of the Imprimerie Nationale, "I will give you 500,000 francs ($100,000) for the Huets and 100,000 francs ($20,000) for these two Bouchers!" "Go one better!" exclaimed the Director of the Imprimerie Nationale, laughingly. "Bid above the million and the Hôtel de Rohan is yours. You will have saved it!" Unfortunately the duke did not fall in with the suggestion, for had he done so Paris would, in all probability, have inherited this fine old house from him, just as the Institute of France has inherited his château.

The two pictures by Boucher, which were evidently ordered by Cardinal de Soubise, since they are dated 1751, are among the treasures of the Hôtel de Rohan. These two charming landscapes (see Figs. 7 and 8) were over the door of the bedroom—the only one in the house, according to the minute description which is given by Blondel. The fact that landscapes do not dominate in the work of the *peintre des Grâces* makes these pictures particularly interesting. Between 1740 and 1751 Boucher painted many rustic scenes, his taste for nature, as seen through the eyes of a follower of Poussin, dating from the time he became attached to the Beauvais tapestry manufactory. One of his pupils, Jacques

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Nicolas Julliar, has placed the fact on record in a petition which he drew up on May 19th, 1749, asking to be sent to Rome to study art. He states that he has given special attention to landscape painting, "and this at the advice of M. Boucher, who had pointed out to him that landscape painters were scarce in France, especially those who could produce works for the King, either tapestries, decorations, or other paintings . . ."*

Four other pictures at the Hotel de Rohan also deserve brief mention. These are J. B. M. Pierre's decorations inspired by mythological subjects: "Neptune Subduing the Winds," "Jupiter and Juno," "Vulcan Presenting the Arms of Achilles to Venus," and "Achilles Receiving His Arms from the Hands of Venus." They were formerly above the doors of the Grand Salon. Two of them are still there; the others are in one of the Director's private rooms.

After the death of Cardinal Armand de Soubise, the Hôtel de Rohan was occupied by his cousin, Cardinal Louis Constantin de Rohan-Montbazon, who, before joining the Church, had been a Knight of Malta and a captain in the navy. It is difficult to say what part he played in beautifying the mansion. As regards mural and other decorations, probably little required doing, and he doubtless, therefore, did no more than refurnish the rooms, or some of them. Were not the two superb pieces of furniture which used to stand in the *cabinet* of the former Director of the Imprimerie Nationale made to his order? Certain

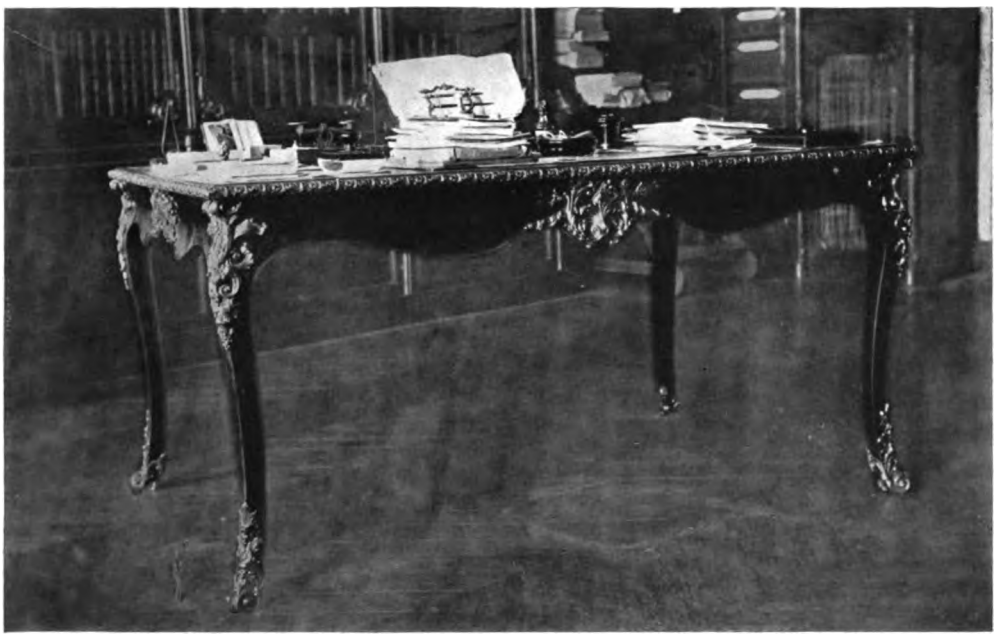


FIG. 10. CARDINAL DE ROHAN—MONTBAZON'S TABLE.

details in their ornamentation would lead one to think so; they have so distinct a reference to some one who had followed a military and naval calling.

The more important of these articles of furniture is a clock, 2 m. 55 cen. in height, ornamented with massive pieces of sculpture in ormolu, and attributed to one of the sons or pupils of Boule. The white enameled dial (see Fig. 9), on which are engraved the words "Le Bon, à Paris," is encircled by a thick band of gold, at the bottom of which, on a blue enameled plate, the name "Le Bon" is repeated. This is surmounted

*National Archives, oe, 1922.

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by a figure of Fame, blowing a trumpet and supporting a shield, above which a Cupid in tears, driven away by the hours, takes his flight. Below the dial a partly nude figure of Time is represented weighing the hours. Immediately underneath are the heads of two children, who are raising a tempest with their breath, the wind and clouds enveloping them being an evident symbol of the stormy days of life. The clock case, which is made of inlaid ebony, is ornamented at the sides with foliage. The lyre-shaped front has a variety of ornaments, all referring to the sea; an unfurled flag, surmounting the prow of a vessel; two dolphins holding urns from which water is abundantly pouring; a crab, etc.

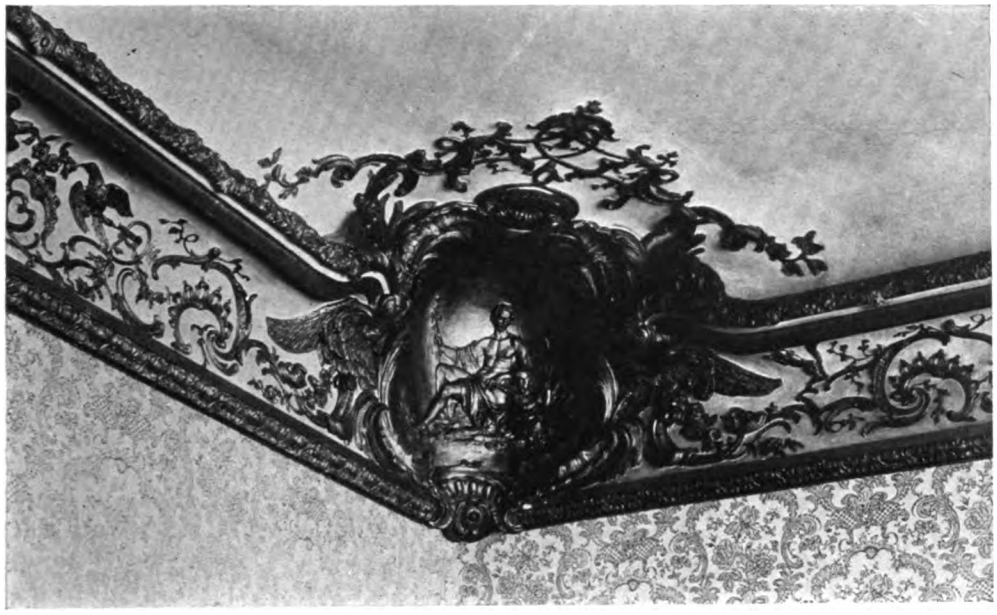


FIG. 11. A CORNER-PIECE OF THE CORNICE IN THE GRAND SALON.

Two duplicates of this richly decorated and beautifully proportioned work of art are known to exist. One is in a private collection in Paris, and the other is owned by a wealthy American collector.

A table made of dark wood, similarly richly ornamented with ormolu, is the other piece of furniture which has been handed down to us from the days of Cardinal Louis Constantin (see Fig. 10). It is principally decorated with foliage, but the two long sides bear sculptured designs of plants and shells on which, placed crosswise, are a trident and an oar.

With Cardinal Louis Constantin's death in 1779 we may look upon the artistic history of the Hôtel de Rohan as definitely closed. His successor in the House of the Four Cardinals was not a man who troubled himself much about art, and even had he possessed a taste for it it is doubtful whether he could have found time, in his superficial and agitated existence, to add to the beauty of the palace which he received from his uncle. Yet of all the members of the great Rohan family the thoughtless, credulous and ambitious Cardinal Louis René Edouard de Rohan-Gueménè is undoubtedly the best known. His gay and brilliant life in Vienna as French Ambassador; his intrigues to win the favor of Marie Antionette, lost through the hatred which her mother, Maria Thérèsa, showed towards him; his relations with Mme. de la Motte and Cagliostro; and, finally, his implication in the Diamond

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Necklace scandal, which had such an effect in influencing men's minds against the monarchy and put him under a cloud for the remainder of his life, have made him one of the most fascinating figures in French history. The life of the man who was elected a member of the Académie Française at the age of twenty-seven, and who, with all his faults, was generous, witty and strong in the hour of adversity was a romance from beginning to end. But before relating some of the many romantic scenes of which the Hôtel de Rohan was the stage during his lifetime, it will be well to describe its present state, because, in several details, it is as it was in the days when this Prince of the Church left it for the Bastille.



FIG. 12. A PORTION OF THE CORNICE OF THE GRAND SALON.

The mansion formerly possessed a grand staircase, but this has been destroyed. Other structural changes have also been made in the case of the rooms, the dining-room on the first floor now forming two rooms. The Grand Salon still retains its original cornice, a beautiful piece of work with massive corner-pieces, on which allegorical subjects stand out in relief on a gold ground (see Figs. 11 and 12). On one of these cartouches is represented a goddess wearing a rustic hat. In one hand she holds a flute, in the other a shepherd's crook. At her feet is a child, playing a trumpet to the notes of which she appears to be listening. Another represents a king, dressed in antique fashion, whose left hand is stretched out towards a nude child, who is also blowing a horn. The subject of the third is a bacchant, holding a thyrsus, turned towards a faune seated on his right; and that of the fourth a partly nude personage, who appears to be conversing with a child standing in front of him with a lyre. The walls of this fine room were formerly covered with silk, but this has been removed, in addition to the wainscoting. On the other hand, two of its doors, with their elegant mouldings and beautifully chiselled locks, still remain (see Fig. 13). The "Salon des Singes" and its well preserved decorative paintings by Huet I have already described, so we can now pass on to the historical events which took place in these ancient rooms.

Prince Louis' relations with the adventuress Mme. de la Motte and the charlatan Cagliostro, and the circumstances under which he came to be their dupe in the Diamond Necklace affair, cannot be thoroughly understood without some explanation of his state of mind about the year 1777. A Cardinal and Grand Almoner of France—one of the highest positions at the Court—he was eaten up with an ambition to become a second Richelieu and reign over France. An

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obstacle, however, stood in his way—the Queen, whose mind had been poisoned against him by her mother, the great Empress of Austria. To regain the good graces of Marie Antoinette was the one object of his life. He wrote her letters which were never answered, or even read, and he endeavored to win her favor through the mediation of persons, including her own brother, who were on terms of the closest friendship with her. But all his efforts, owing to the intervention of the watchful Mercy-Argenteau, Maria Thérèsa's agent, were in vain. It was then that he had recourse to the assistance of Cagliostro and Mme. de la Motte, who, in his or her own way, professed to aid him in the realization of his object.



FIG. 13. CHISELED LOCK ON ONE OF THE DOORS OF THE GRAND SALON.

The Cardinal had made Cagliostro's acquaintance at Strasburg, and the "Sicilian jail-bird," as Carlyle calls him, had gained such an ascendency over his credulous mind that he fitted up an alchemist's laboratory at his residence, the Château de Saverne. He was convinced that Cagliostro could manufacture gold and precious stones, and that he would make him one of the richest princes in Europe.* Thus, when Cagliostro enlarged the field of his operations by coming to Paris, he had a powerful friend in Cardinal de Rohan, who not only chose the house which he occupied in the Rue Saint Claude,† but furnished him with a second laboratory at the Hôtel de Rohan. Three or four times a week, at about the dinner hour, could the cardinal be seen entering the Hôtel d'Orvillers, which he did not leave until a late hour of the night; and many were the magical séances which the prelate and the thaumaturgist, sometimes aided by a clairvoyante, held in the Rue de Vieille du Temple. This clairvoyante was Mlle. de la Tour, the daughter of a sister of Mme. de la Motte's husband, and it is, thanks to the evidence which she gave at the trial of those who were implicated in the

*Baronne d'Oberkirch "Mémoires."

†G. Lenôtre, "Vieilles maisons, vieux papiers." 1st Series. Article: "La Maison de Cagliostro."

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Diamond Necklace scandal, evidence preserved in the National Archives, that we are able to describe Cagliostro's ceremonies. On her second visit to the Hôtel de Rohan (a preliminary séance had been held there some days before with the object of proving her innocence, one of the indispensable qualifications of a clairvoyante, the others being, according to Cagliostro, that she should be born under the constellation of Capricorn, and possess blue eyes and delicate nerves) she found the cardinal and the magician waiting for her in a room in which, on a table, were two lighted candles and a large globe filled with water. After she had put on a little white apron, on which was a silver star, they ordered her to approach the table, gaze into the globe, and say if she saw the figure of the Queen. At the same time Cagliostro made magical signs with a sword behind a screen, and called upon the Great Copt and the angels Raphael and Michel. Mlle. de la Tour, who saw nothing at all, replied, in order to "rid herself of them," that she could see Marie Antoinette distinctly. On another occasion she was introduced into a room brilliantly illuminated with candles, her dress this time consisting solely of a long white smock and a blue scarf. On the table, in addition to the globe of water, were a number of "petite bonshommes" and magical signs—statuettes of Isis and the ox Apis, and Egyptian hieroglyphics. Asked if she could see a white lady in the globe, and whether this lady resembled the Queen, the girl replied in the affirmative. Cagliostro then made her repeat his invocations to the Great Copt and the Angel Gabriel, and informed her that she would see the Cardinal on his knees, holding a snuffbox in which was half a crown. Mlle. de la Tour replied that she could indeed see the Cardinal in such a posture. Whereupon Cardinal de Rohan declared, in the most animated manner, that it was "incredible and extraordinary." He had the air, observed Mlle. de la Tour, of being "filled with joy and satisfaction."

Some time later, on January 31, 1785, the Cardinal consulted Cagliostro on the subject of the Diamond Necklace, which Mme. de la Motte, who had won Prince Louis' heart at the Chateau de Saverne, had persuaded him the Queen wished to purchase, unknown to the King, from the jewelers Böhmer. The conditions under which the necklace was to be delivered had been settled two days before. The price was to be 1,600,000 livres ($320,000), payable in four quarters, every six months, the first payment of 400,000 livres ($30,000) being made by the Queen on August 1, 1785. The jewel was to be delivered at the Hôtel de Rohan on February 1st. The Cardinal himself put these conditions on paper and communicated them to Mme. de la Motte, so that they could be submitted to Marie Antoinette and approved by her. On January 30th, Jeanne de Valois again called at the house in the Rue Vieille du Temple. She stated that the Queen agreed to the bargain, but objected to signing any document. The Cardinal, however, insisted, so, on January 31st, Mme. de la Motte brought him the conditions of sale with the forged signature, "Marie Antoinette de France."* But Louis de Rohan, persuaded though he was that the services which he was rendering the Queen would definitely regain her favor, could do nothing without first consulting his faithful Cagliostro, who, on his return from a visit to Lyons, proceeded to consult the spirits. "The necromancer," writes Abbé Georgel in his Memoirs, "stepped on to his tripod. The Egyptian invocations were pronounced at night in the Cardinal's own drawing-room, which was illuminated by a large number of candles. The oracle, inspired by his familiar demon, declared that the negotiation was worthy of the prince, that it would be entirely successful, that it would affix a seal on the Queen's goodness and would herald the dawn of the auspicious day on which, for the happiness of France and humanity, the rare talent of Monsieur le Cardinal would be revealed."

It would be somewhat beyond the scope of this article to relate all the intricate details of the "Affaire du Collier," so I shall touch merely on those which

*Frantz Funck-Brentano, "L'Affaire du Collier," d'après de nouveaux documents, etc.

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have a direct connection with the House of the Four Cardinals. In the first place, it is interesting to know that this wonderful necklace, which was shortly afterwards to be broken up and sold by Mme. de la Motte and her husband, was handed to the Cardinal de Rohan on February 1, 1785; and it does not require a great effort of the imagination to picture him, perhaps at that very table which stands to-day in the Imprimerie Nationale, admiring the fire of its diamonds. The next act in this great historical drama was his arrest at Versailles on August 15th of the same year. He was allowed to sleep that night at his mansion in the Rue Vieille du Temple. On the afternoon of the 16th he was seen at his drawing-room windows, overlooking the large gardens between the Hôtel Soubise and the Hôtel de Rohan, playing with his monkey. Towards evening the Marquis de Launey, Governor of the Bastille, came to make him prisoner, and at half-past eleven the Cardinal, in a closed carriage, crossed the draw-bridge of the fortress.

Cardinal de Rohan was to return, after his acquittal, to the Rue Vieille du Temple. A large crowd collected, early on the morning of June 2, 1786, around his palace, and he was forced to appear at its windows in answer to the cries of "Vive le Parlement! Vive le Cardinal! But he did not stay there long. Three days later, exiled to the Abbaye de la Chaise-Dieu, he took his departure, and at this point he passes out of our history.

We have now almost reached the period at which the Hôtel de Rohan became the Imprimerie Nationale. On August 13, 1807, some four years after Cardinal de Rohan's death, the princes of the house of Soubise-Guéméné were dispossessed of their property, and by a decree of March 6, 1808, the Palais Cardinal and the Hôtel de Soubise were set apart, respectively, for the use of the National Archives and National Printing Works. At that time the Imprimerie Nationale occupied the Hôtel Penthièvre, now the Bank of France. By the end of November, 1809, it was in its new quarters, the cost of transferring its machinery, etc., amounting to 48,000 francs ($9,600). Since then the works have several times changed their name. Under the Restoration they were called the Imprimerie Royale, after 1830 the Imprimerie du Government, in 1848 the Imprimerie Nationale, after the Coup d'Etat the Imprimerie Impériale, and after the 4th of September once more the Imprimerie Nationale. With the various political changes which have taken place during the last ninety-five years the National Printing Works have been the scene of many interesting though minor events of history. The building still exists where the famous proclamations of the 2d of December announcing the dissolution of the Assembly were composed. Surely printers never worked under more abnormal conditions than those workmen on that morning of the Coup d'Etat! Ordered to set up the proclamation, they flatly refused, and attempted to leave the works. But M. de Saint George made them prisoners and marched them off to their cases under an escort of gendarmes. And thus, menaced with loaded pistols, they set up the white poster which on the morrow informed the inhabitants of Paris that the Assembly was dissolved and the Republic virtually dead.

It is for the recording of historical events, however, rather than for those events themselves, that the Imprimerie Nationale is famous. Books in every language under the sun, decrees innumerable, and State Bonds by the million have been poured out by its presses. Every year it prints, in bulk, the equivalent of three to four million volumes; and it is owing to the enormous annual increase in its output that it is removing to its new quarters in the Rue de la Convention. In 1885 it printed 162,499,155 sheets; in 1895, 183,469,283; and in 1903, 272,056,656. In other words, its output has almost doubled in nineteen years. As I have already said, the National Printing Works of France have produced countless volumes of history. State institution though it be, it executes orders given by foreign governments or private individuals. Many a European Power has felt the need of a similar printing works, where documents could

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be printed in secret, and has had recourse to the Imprimerie Nationale of France. For instance, at the time of the conflict between the United States and England over the "Alabama" question, the British Government had the huge volumes containing the history of the incident set up and printed in the Rue Vieille du Temple. The work was done under the very eyes of the members of an English delegation, and with such expedition that Her Majesty's Government congratulated the officials of the works on the rapidity with which its commission had been carried out. On another occasion, the King of Prussia—the lettered brother of the future Emperor of Germany—got the Imprimerie Nationale to print the catalogue of Chinese books in the Berlin Library. A national printing works has reason to be proud over such commissions as these.

Frederic Lees.



FERGUSON AND McKINLEY BUILDING.

St. Louis, Mo. Eames & Young, Architects.

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RECENT AMERICAN ARCHITECTURE

The Herter House, Santa Barbara, California

Delano & Aldrich, Architects

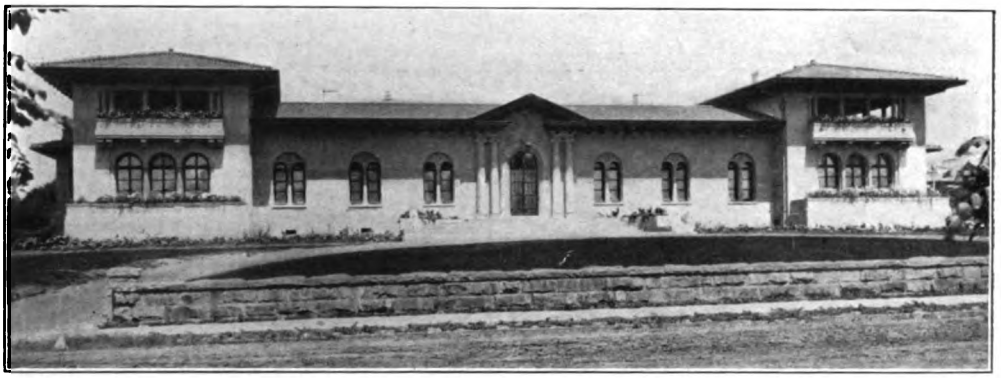
The plan of this house is developed directly from the requirements of an owner going from New York to Santa Barbara to live, and anxious to enjoy to the utmost the peculiar advantages of the Southern Californian climate. First of these in the mind of the owner is the possibility of practically living out of doors, in and around the *patio,* whose luxuriant gardens form the central feature of the house. Everywhere the floral growth which is one of the joys of California life is counted upon to add its note of color and gayety. It is not only in this *patio,* but also in the end balconies and in the two upper loggias, that masses and lines of flowers are used as part of the decoration of the house.

Around the *patio* the life of the house is centered. Rain and cold are unknown during the season in which this house is occupied, and for this reason the *patio* and its surrounding arcade are used almost like a great out-of-door room. The parts of the building which surround it protect it from the gaze of passers-by, for this house is built in the town itself, and the streets of Santa Barbara surround it on all four sides. Along the front run the rooms for entertaining, opening one from another, and at one end of them is the owner's private suite. Along another side is a service wing, and on the third a series of guests' rooms, with their dependencies. Communication between these various parts is furnished by the open arcades which surround the *patio,* whose gardens are constantly enjoyed by everyone in the house.

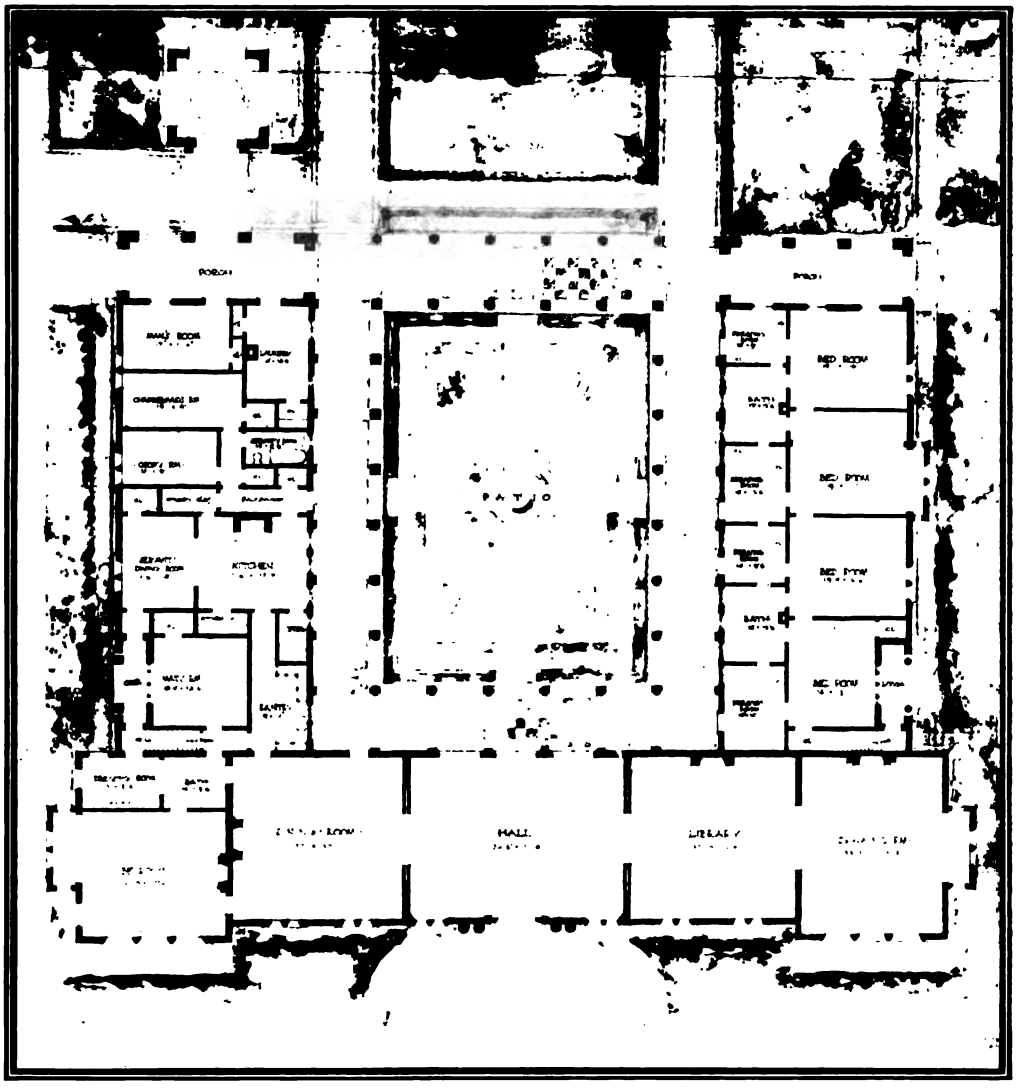
With regard to the exterior expression of this plan, its form and character, and the nature of the gently sloping land on which the house is built, have led to an accentuation of the horizontal lines to wide overhanging eaves and deep shadows. It is intended to treat with color decorations the door and window arches and the underside of the eaves.

All these things recall the architecture of southern Europe, which has furnished the motives of decoration; but there seems no reason for dragging in any reference to the hard-worked "Mission" style which was developed from other needs and through other and special means of construction. There seems no reason other than a purely sentimental one why this style should be taken for granted as a point of departure for modern Californian architecture. In these elevations the effort has been all to express, in a simple and straightforward manner, the individual plan and purpose of the house in terms of a more or less traditional style, and without conscious striving after originality.

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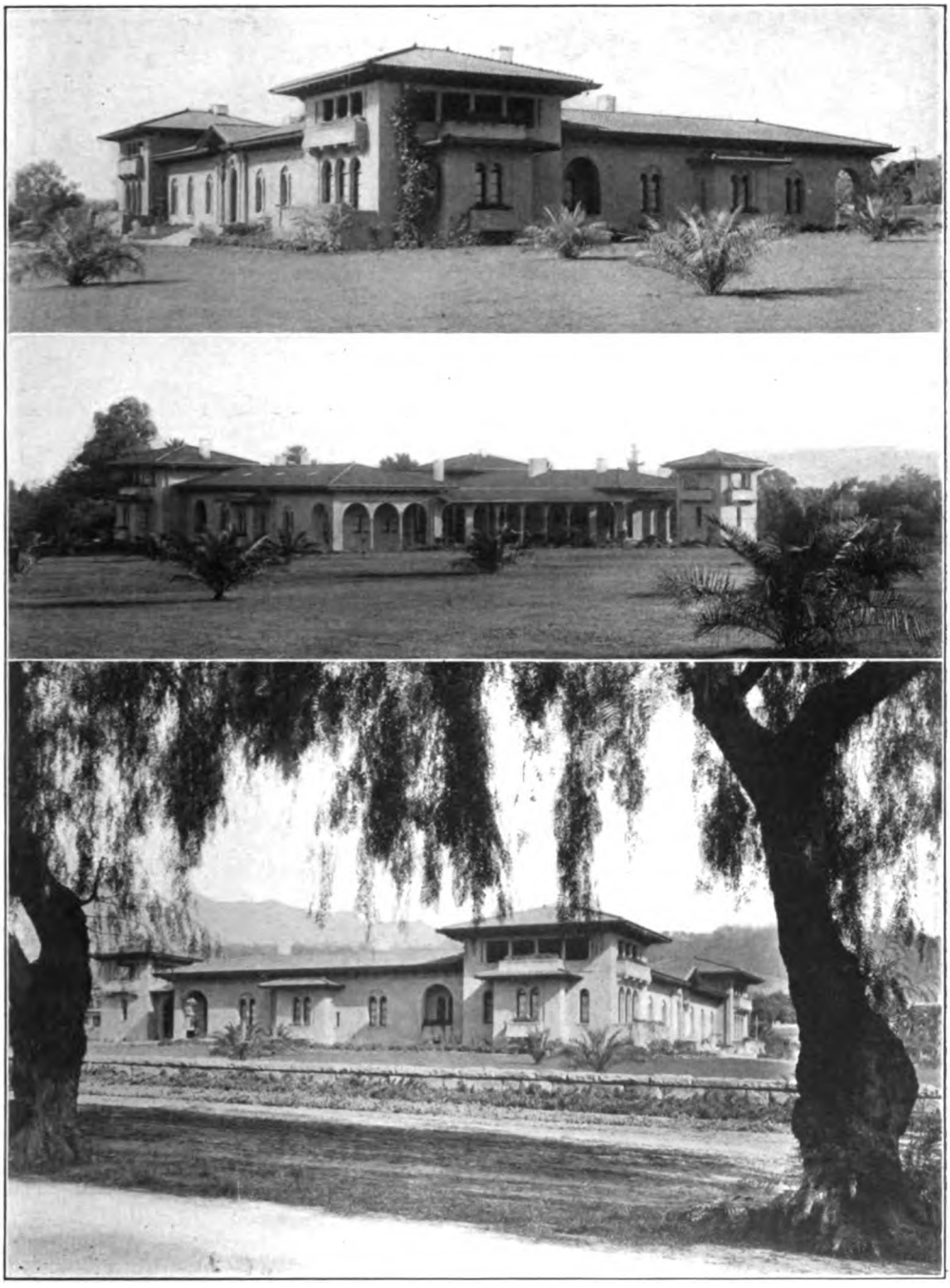
THE HERTER HOUSE—FACADE.



THE HERTER HOUSE—PLAN.

Santa Barbara, Cal. Delano & Aldrich, Architects.

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THE HERTER HOUSE—SIDE AND REAR VIEWS.

Santa Barbara, Cal. Delano & Aldrich, Architects.

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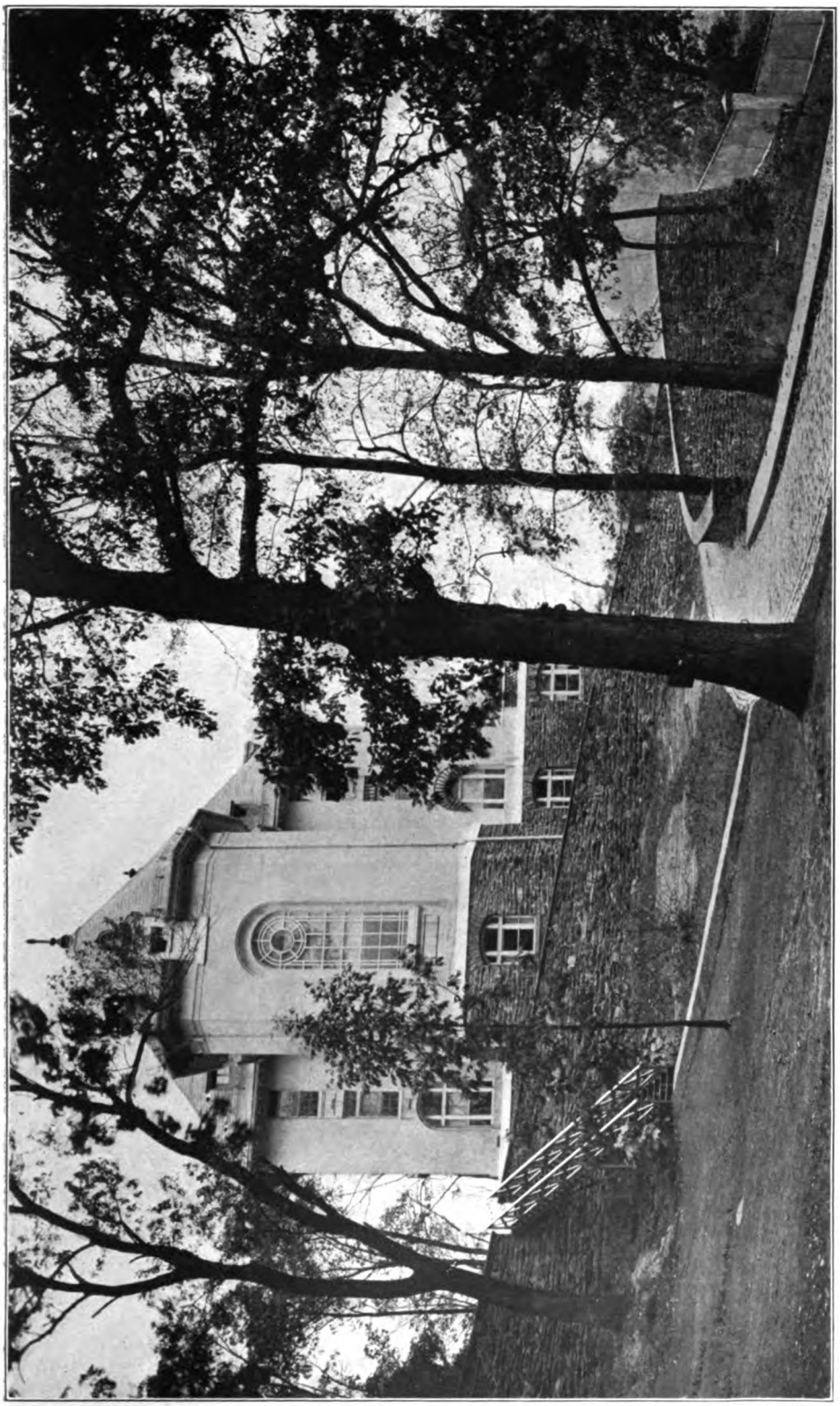


VIEW IN THE PATIO.



THE HERTER HOUSE—LOOKING INTO THE PATIO FROM THE REAR.
Santa Barbara, Cal. Delano & Aldrich, Architects.

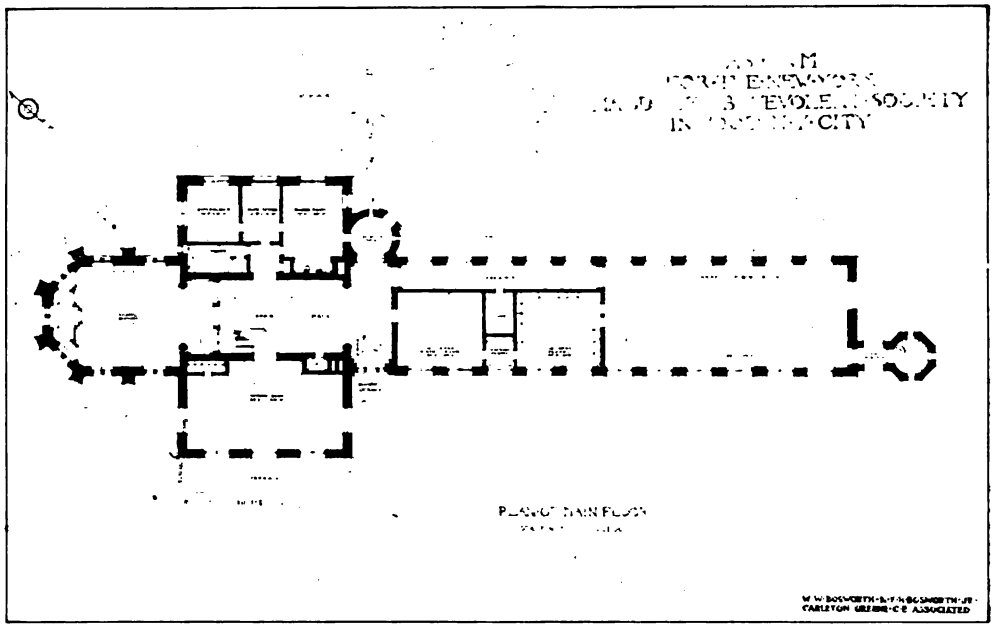
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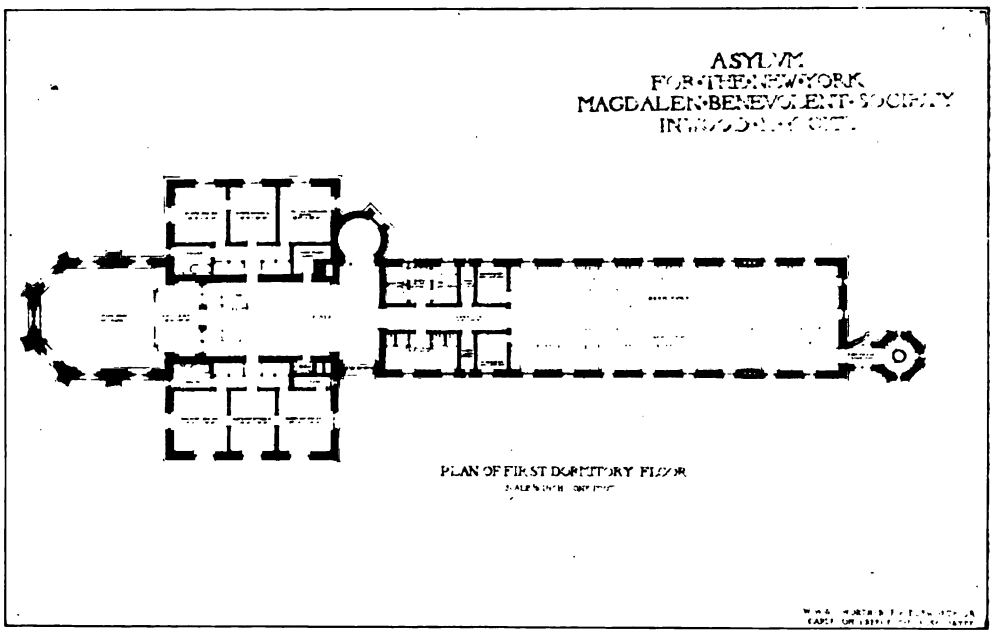
ASYLUM FOR THE NEW YORK MAGDALEN BENEVOLENT SOCIETY.
W. W. Bosworth and F. H. Bosworth, Architects.
Carleton Greene, C. E., Associated.

Inwood, New York City.

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MAIN FLOOR PLAN.

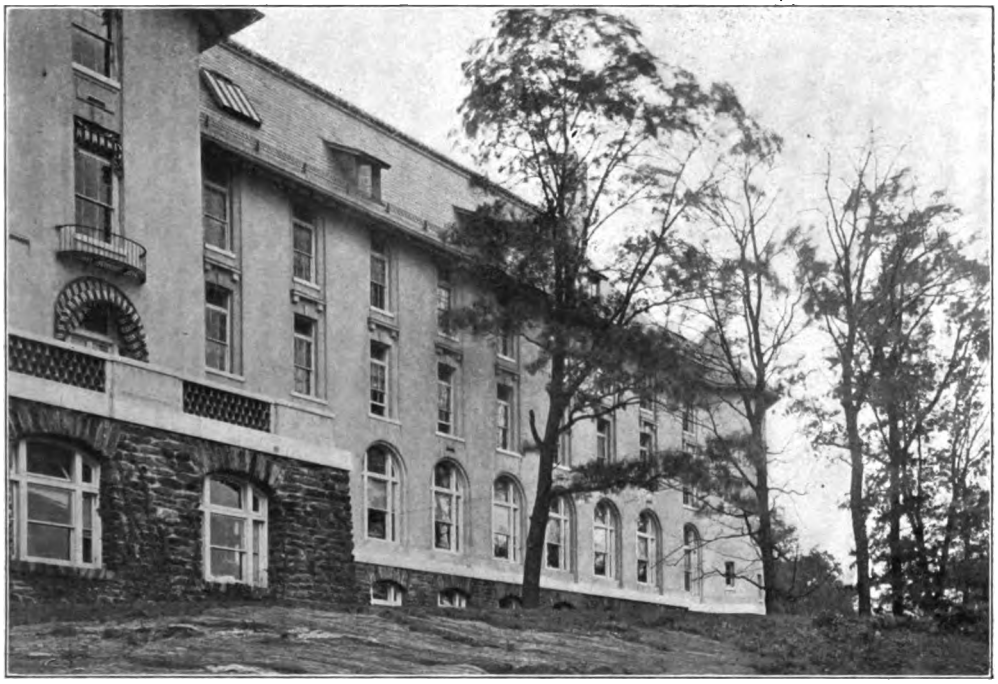


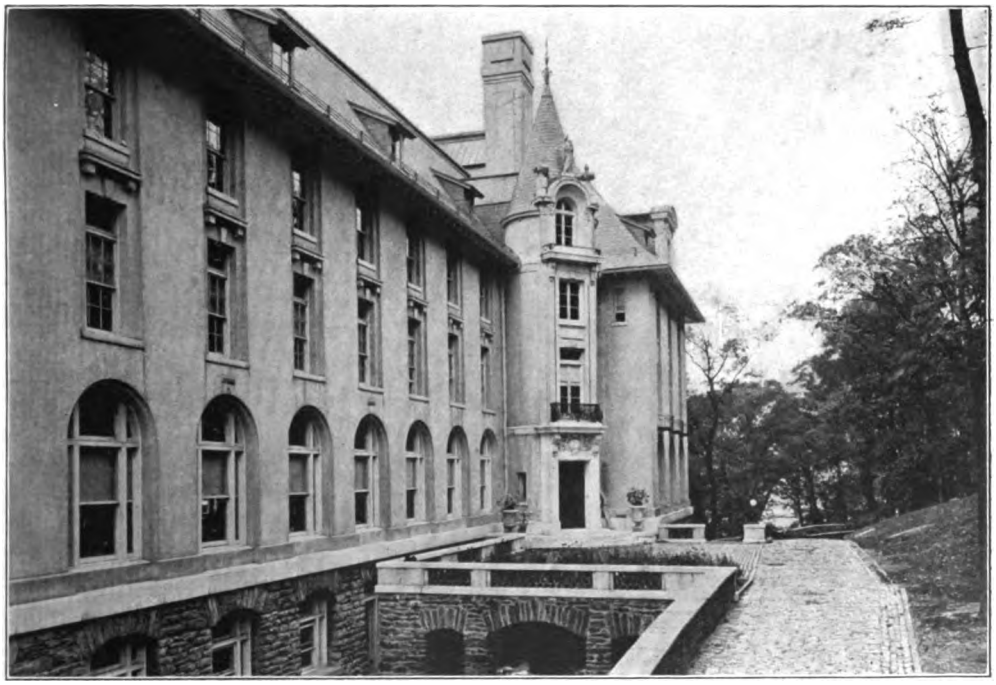
FIRST DORMITORY FLOOR PLAN—ASYLUM FOR THE NEW YORK MAGDALEN BENEVOLENT SOCIETY.

Inwood, New York City.

W. W. Bosworth and F. H. Bosworth, Architects.
Carleton Greene, C. E., Associated.

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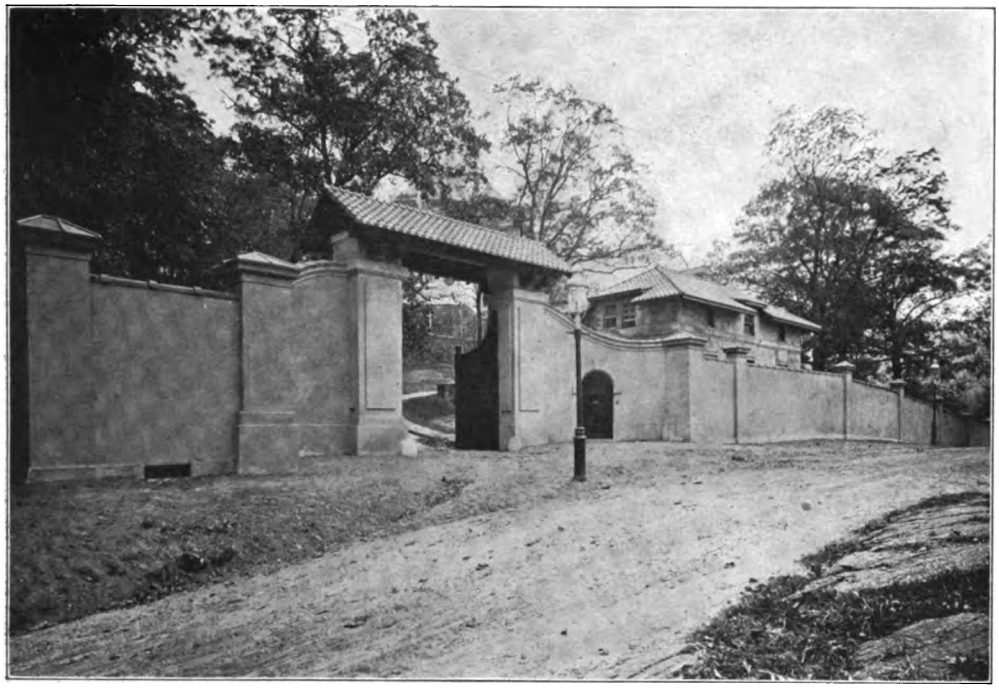


ASYLUM FOR THE NEW YORK MAGDALEN BENEVOLENT SOCIETY.

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ENTRANCE TO THE GROUNDS.

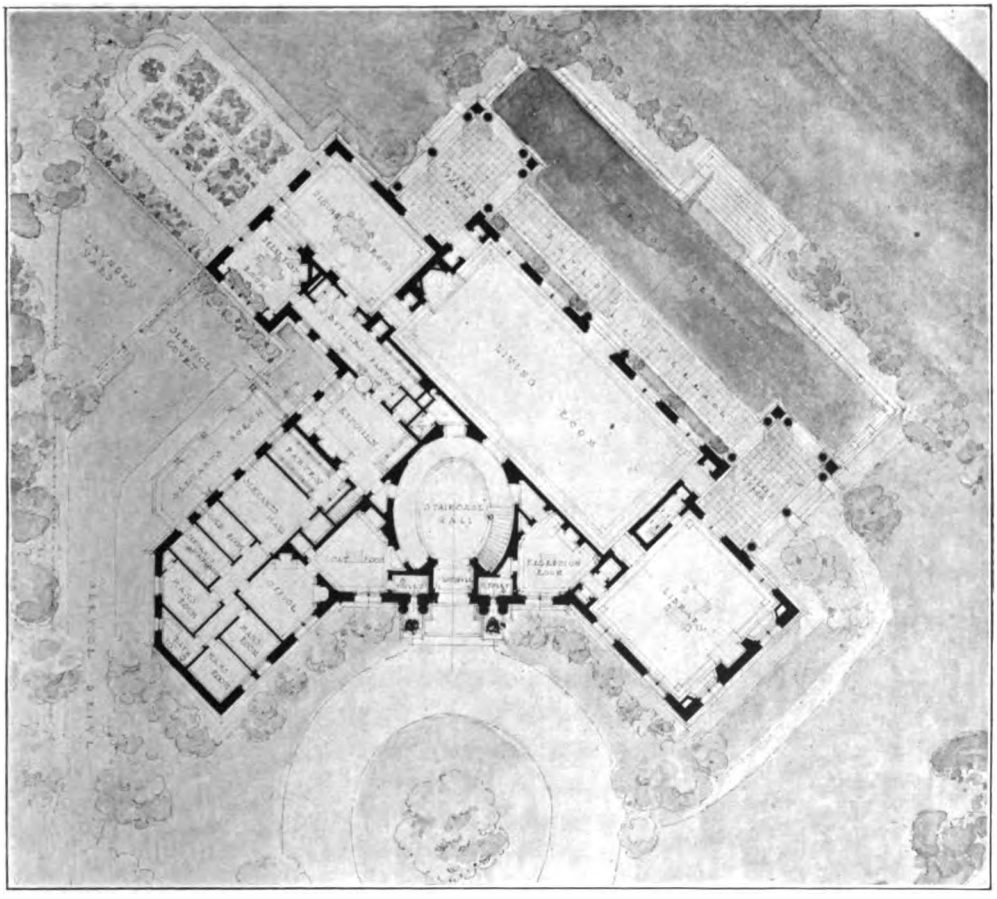


ASYLUM FOR THE NEW YORK MAGDALEN BENEVOLENT SOCIETY.
Inwood, New York City. W. W. Bosworth and F. H. Bosworth, Architects.
Carleton Greene, C. E., Associated.

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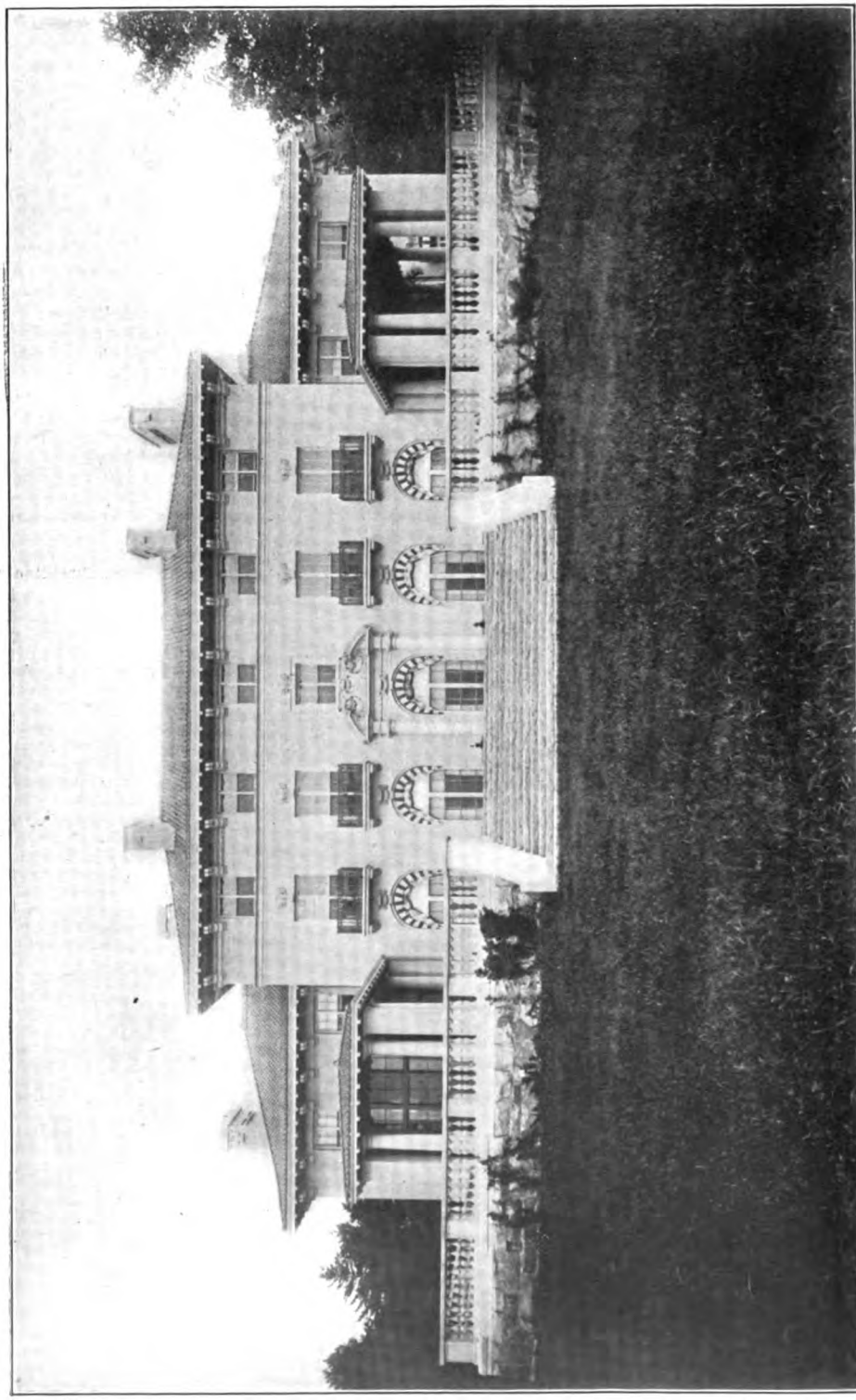


THE FRED. AYER HOUSE—ENTRANCE SIDE.
Pride's Crossing, Mass. Parker, Thomas & Rice, Architects.



THE FRED. AYER HOUSE—MAIN FLOOR PLAN.
Pride's Crossing, Mass. Parker, Thomas & Rice, Architects.

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THE FRED. AYER HOUSE—GARDEN FRONT.

Parker, Thomas & Rice, Architects.

Pride's Crossing, Mass.

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THE FRED. AYER HOUSE—STAIRCASE HALL.

Pride's Crossing, Mass. Parker, Thomas & Rice, Architects.

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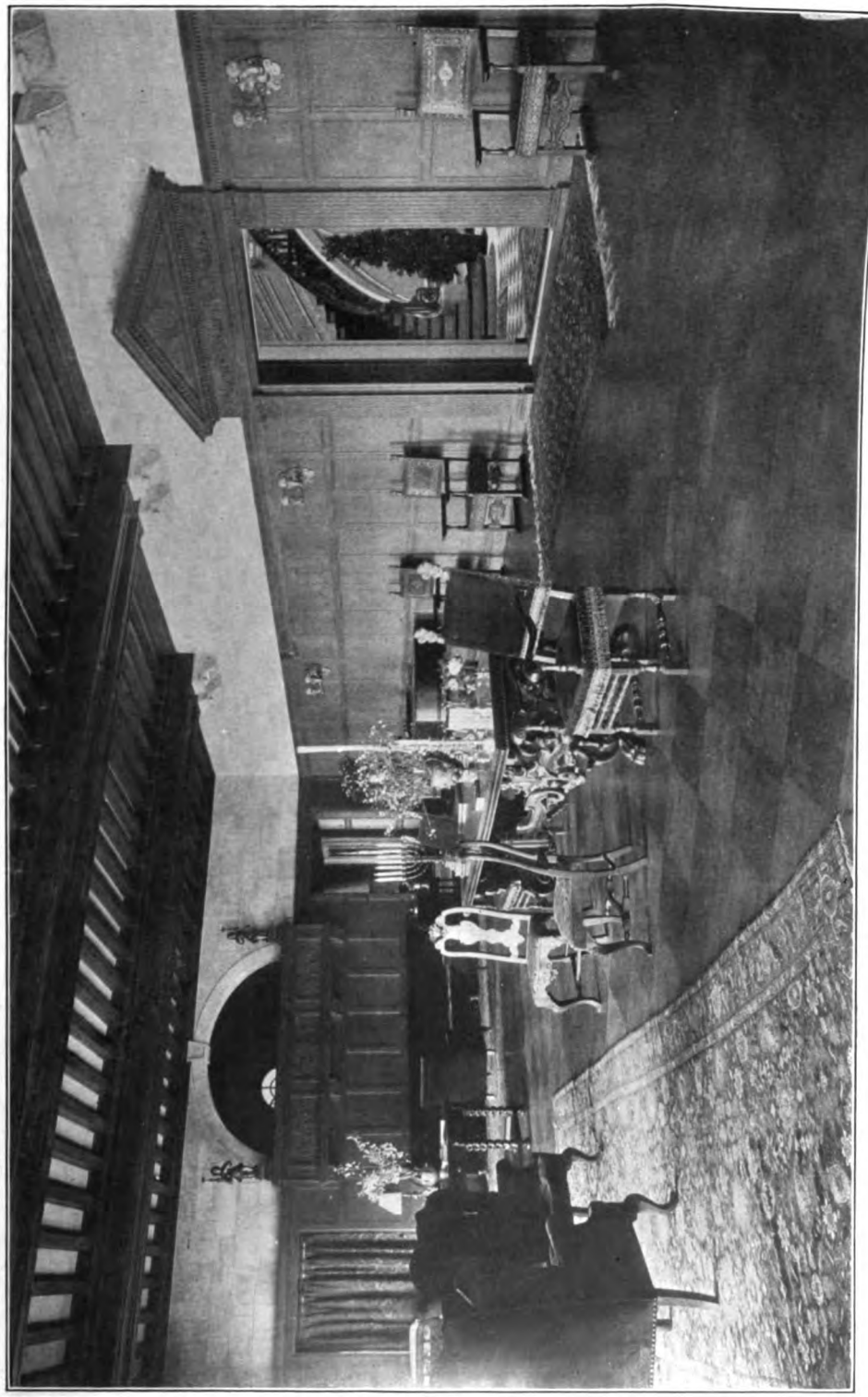


THE FRED. AYER HOUSE—DINING ROOM.
Pride's Crossing, Mass. Parker, Thomas & Rice, Architects.



THE FRED. AYER HOUSE—LIBRARY.
Pride's Crossing, Mass. Parker, Thomas & Rice, Architects.

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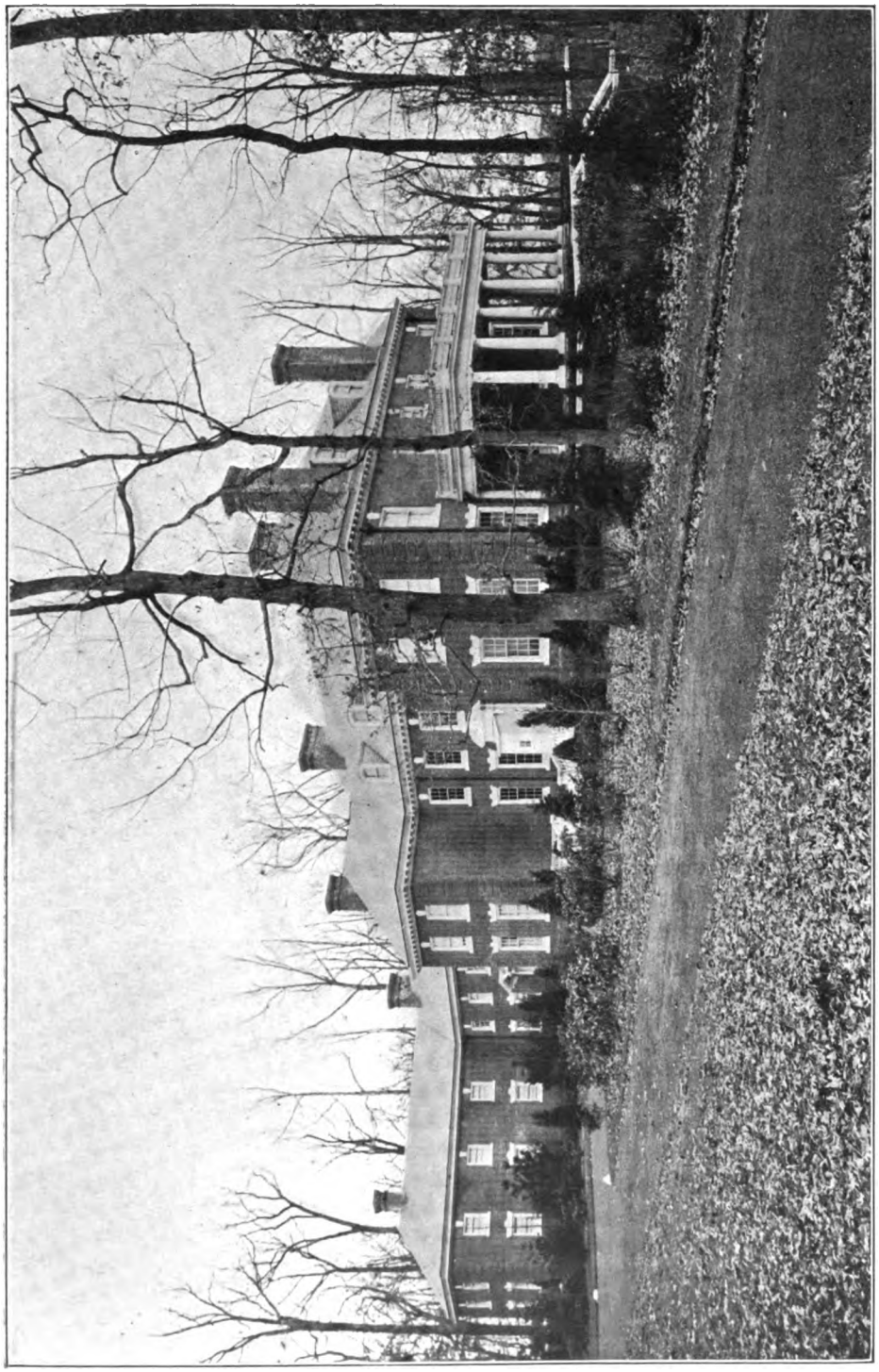


THE FRED. AYER HOUSE—LIVING ROOM.

Parker, Thomas & Rice, Architects.

Pride's Crossing, Mass.

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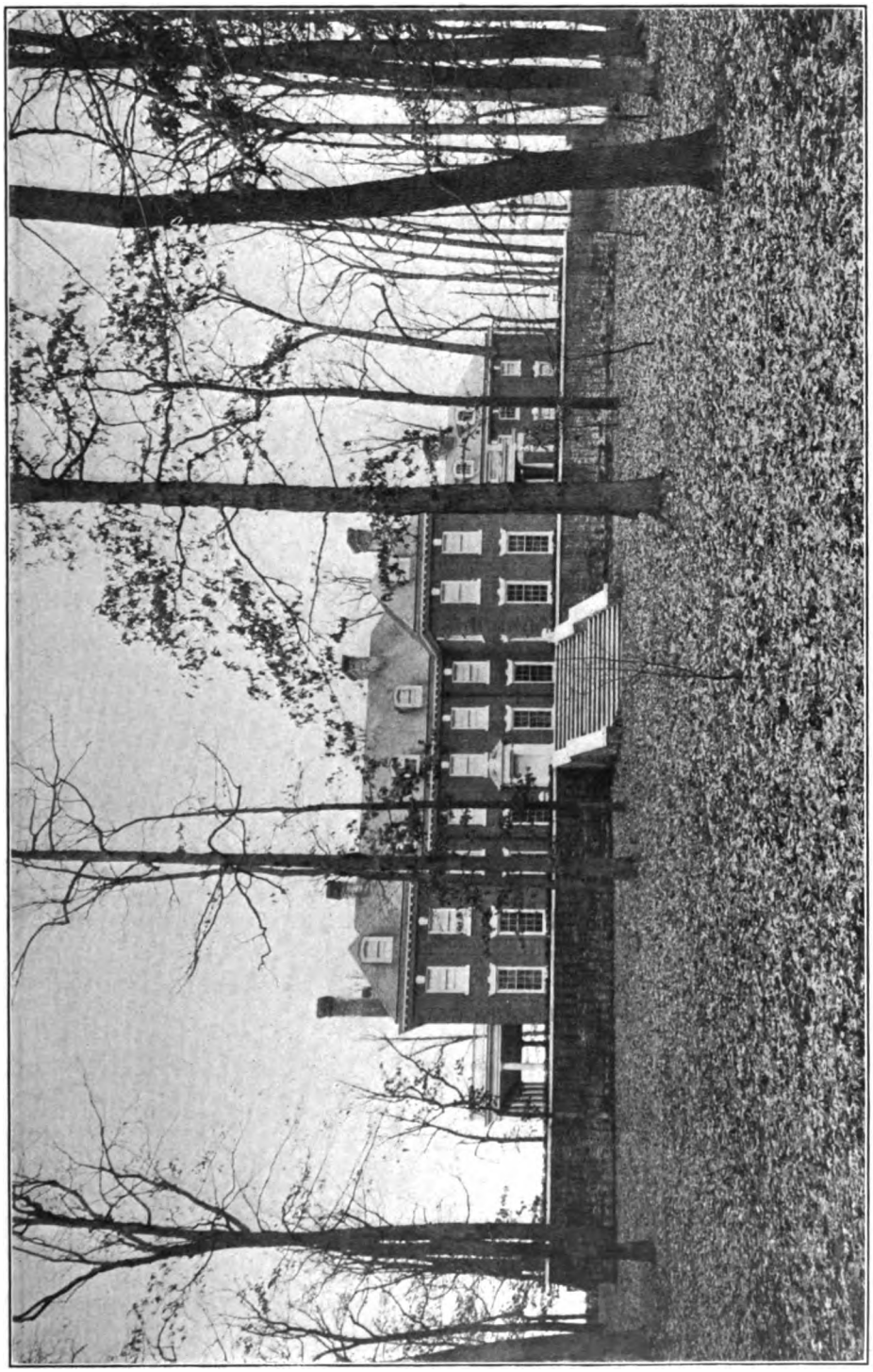


FRANCIS E. BOND HOUSE—NORTH SIDE.

Pennlyn, Pa.

Horace Trumbauer, Architect.

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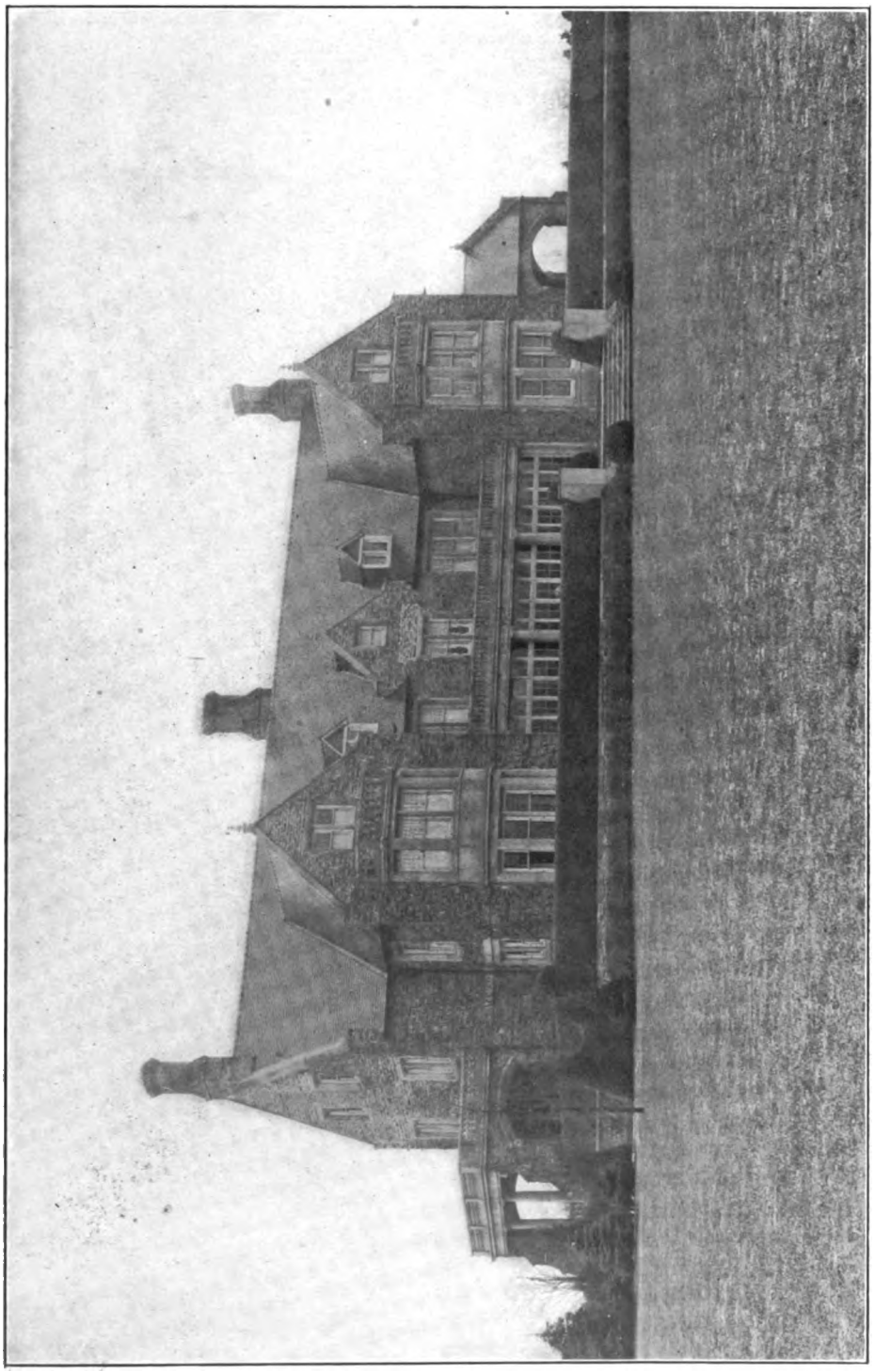


FRANCIS E. BOND HOUSE—GARDEN OR SOUTH FRONT.

Horace Trumbauer, Architect.

Pennlyn, Pa.

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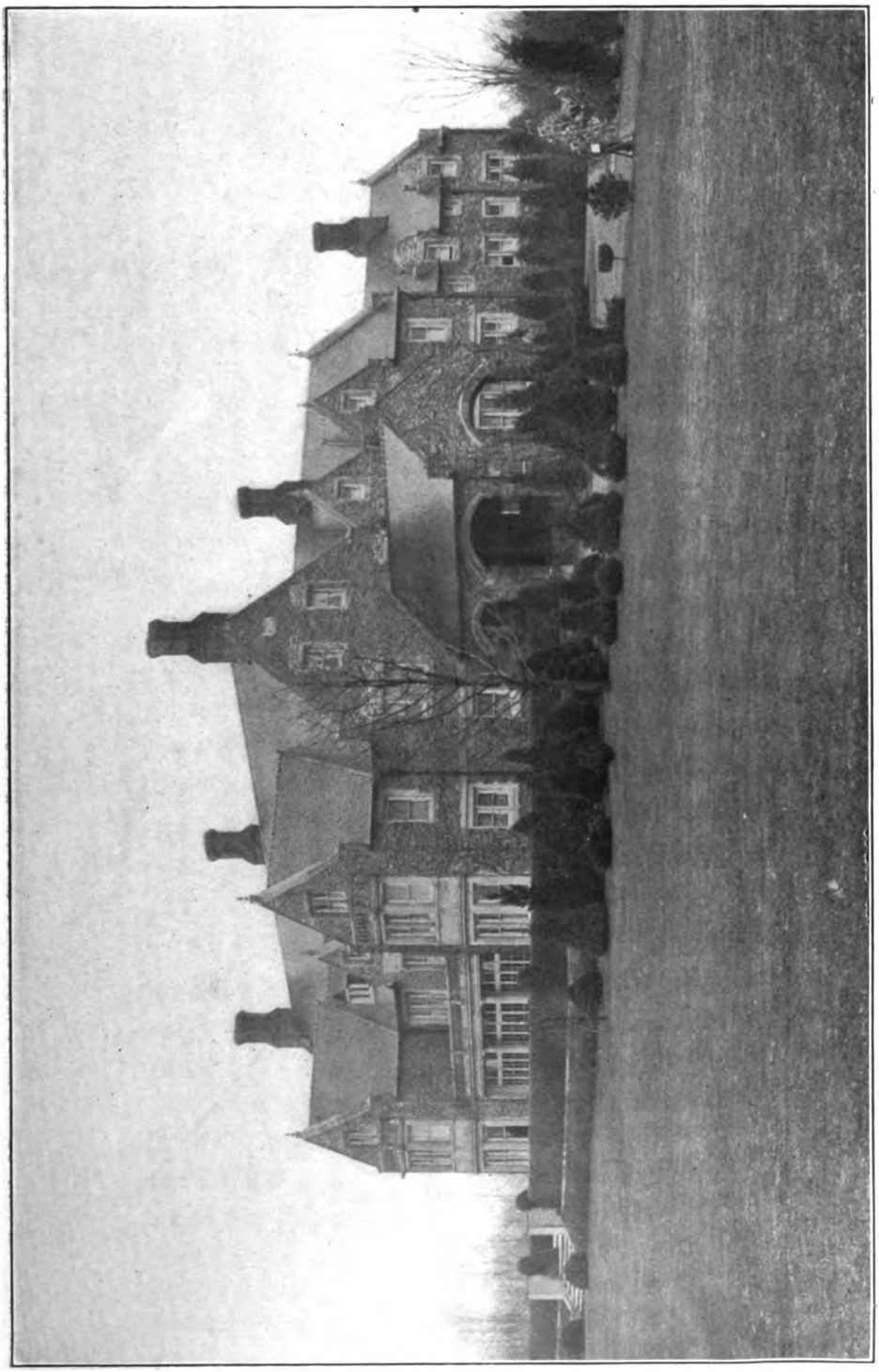


JOHN GRIBELL HOUSE.

Wyncote, Pa.

Horace Trumbauer, Architect.

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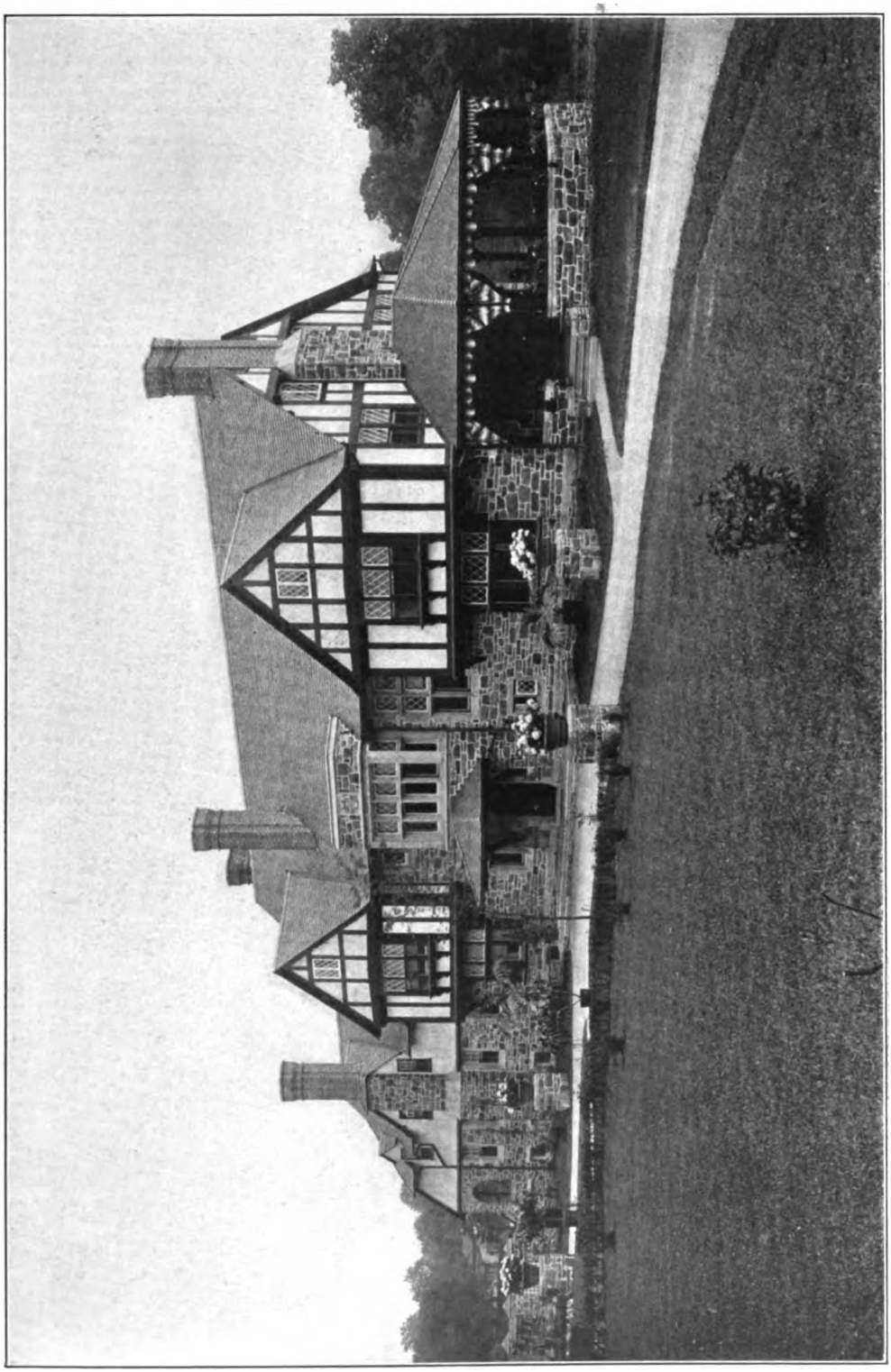


JOHN GRIBELL HOUSE.

Horace Trumbauer, Architect.

Wyncote, Pa.

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HOUSE OF DR. D. B. DARBY—FRONT.

Chas. Barton Keen, Architect.

Merion, Pa.

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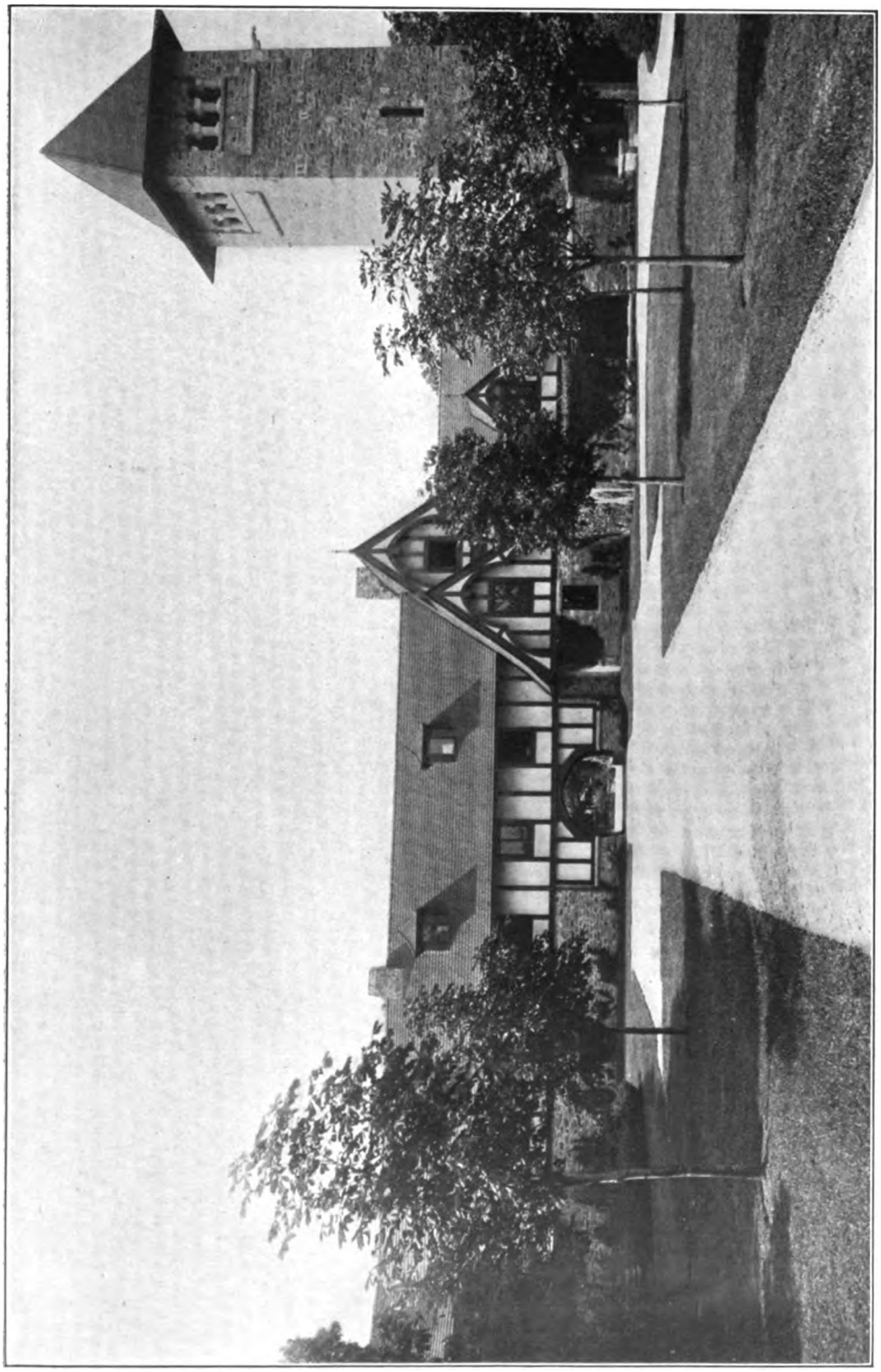


HOUSE OF DR. D. B. DARBY—GARDEN SIDE.

Chas. Barton Keen, Architect.

Merion, Pa.

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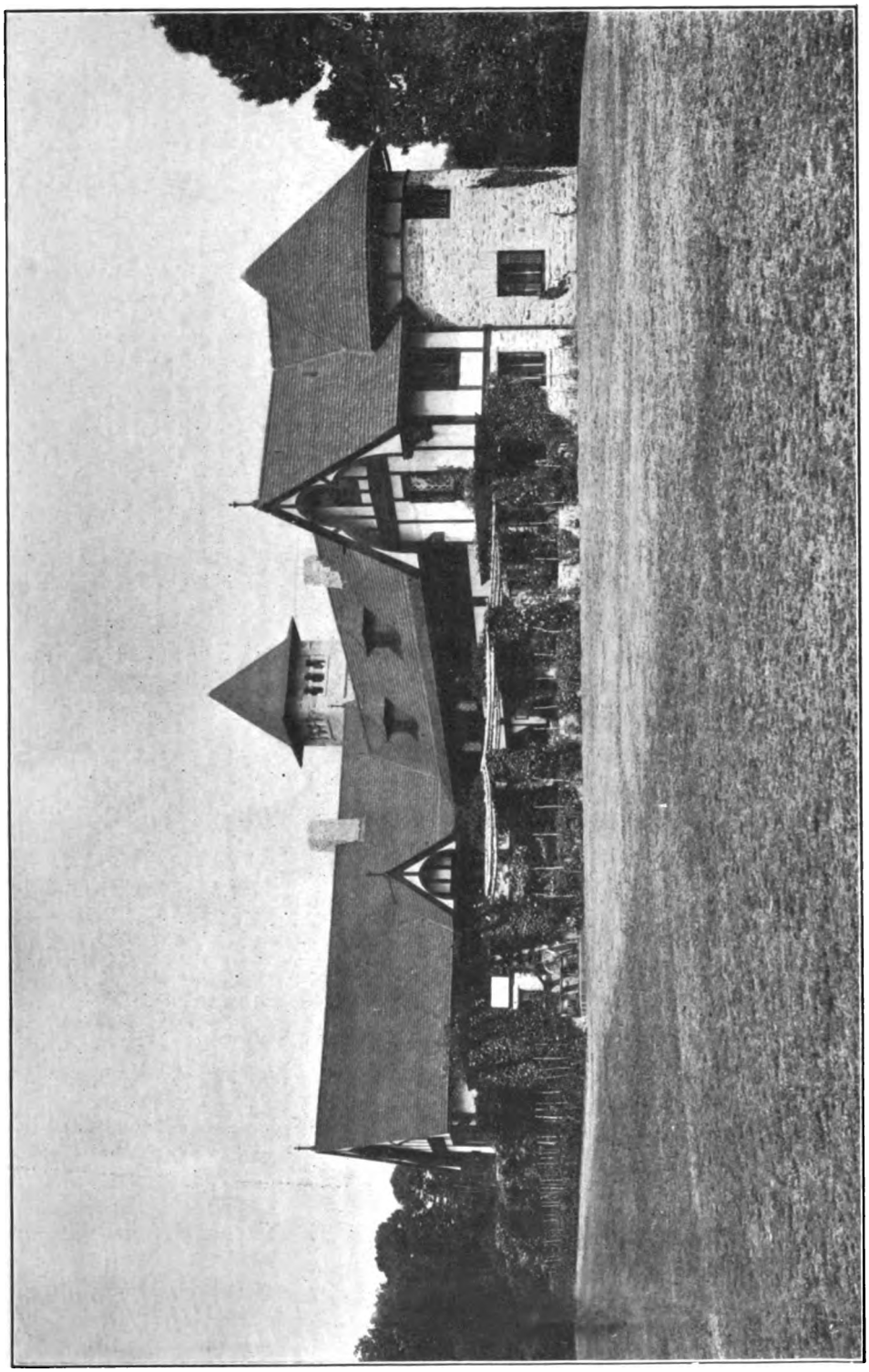


HOWARD TAYLOR HOUSE.

Cobalt, Conn.

Algernon Bell, Architect.

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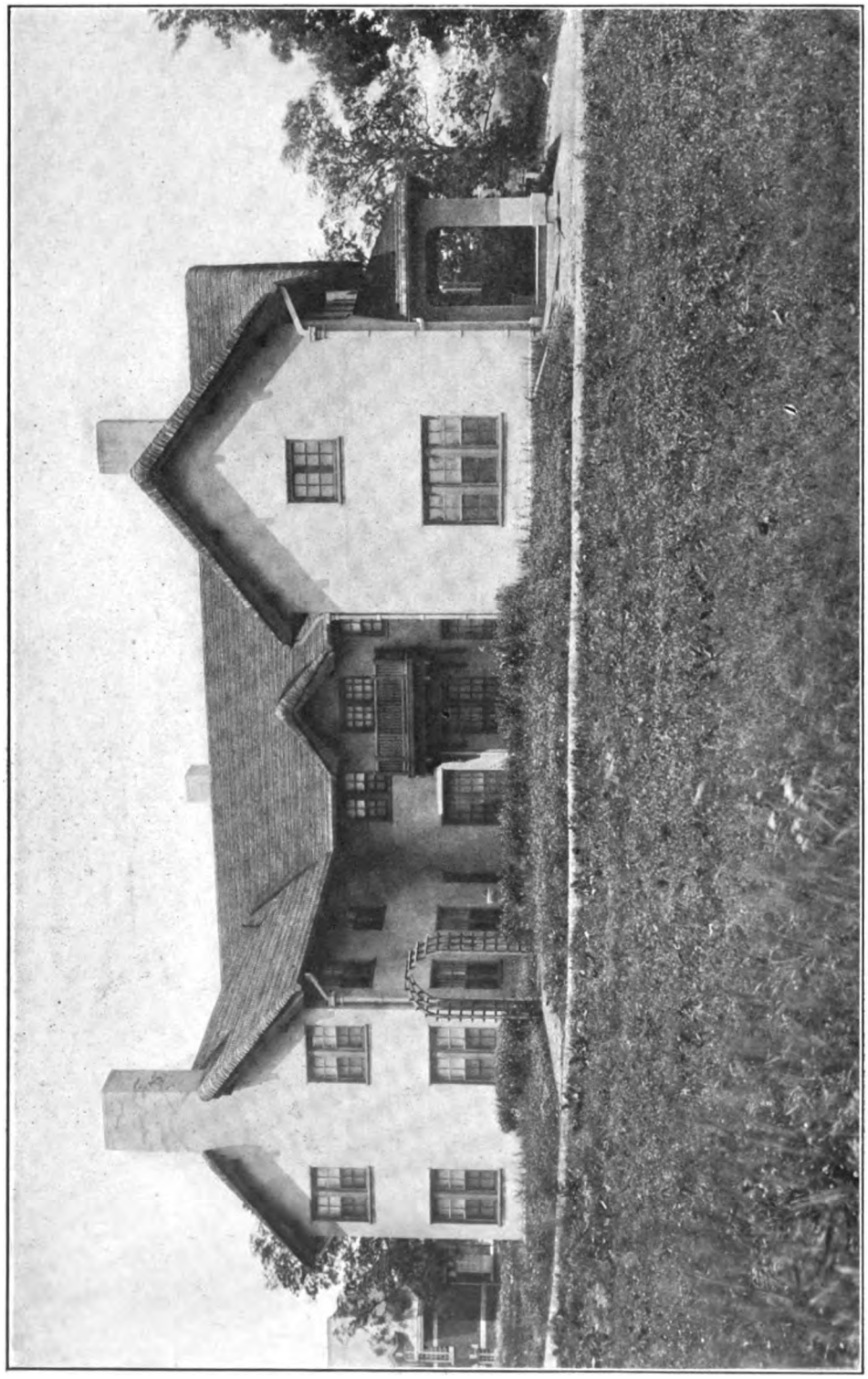


HOWARD TAYLOR HOUSE.

Cobalt, Conn.

Algernon Bell, Architect.

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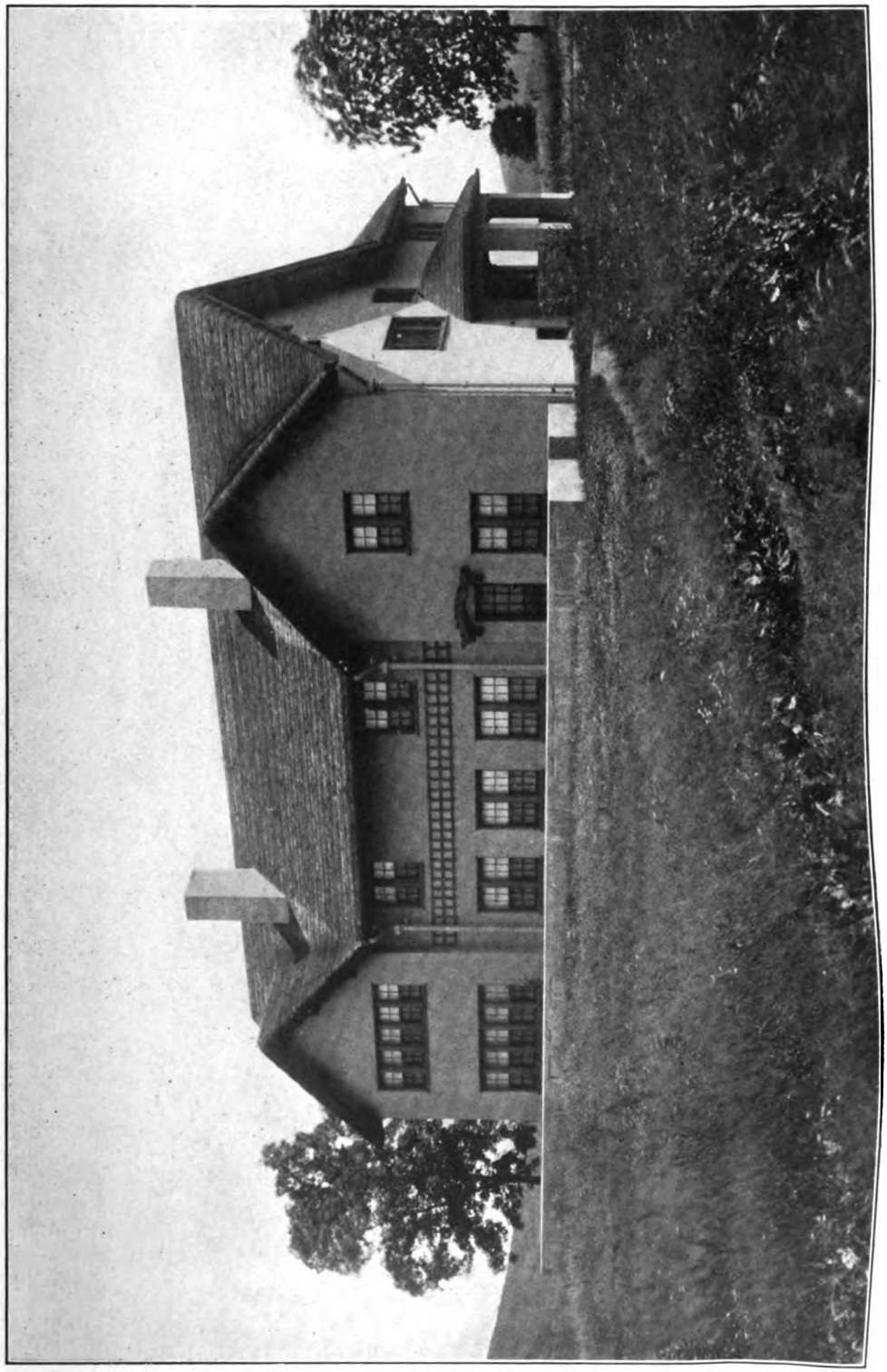


DUNNING HOUSE—FRONT VIEW.

H. V. B. Magonigle, Architect.

Briarcliff, N. Y.

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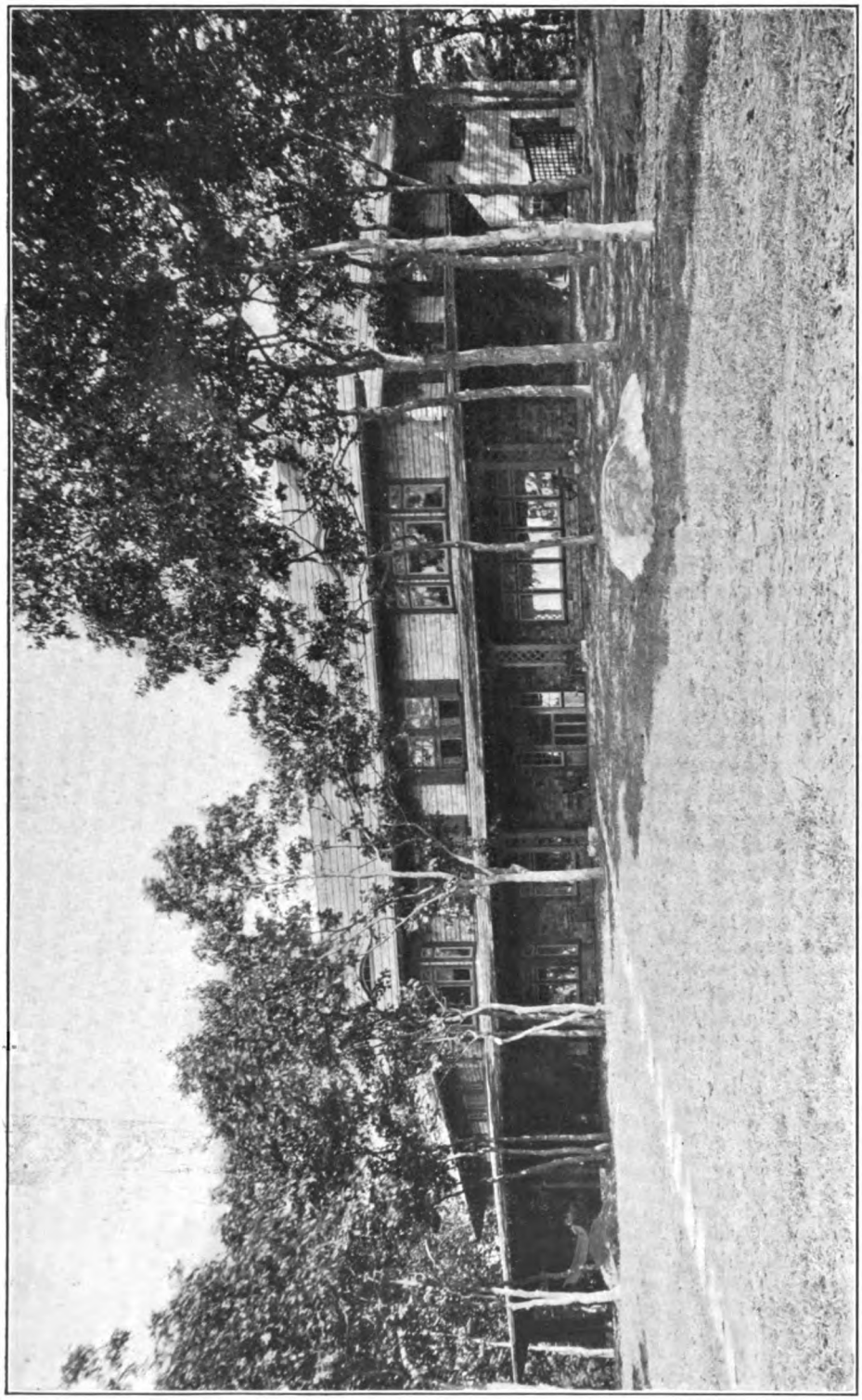


DUNNING HOUSE—REAR VIEW.

H. V. B. Magonigle, Architect.

Briarcliff, N. Y.

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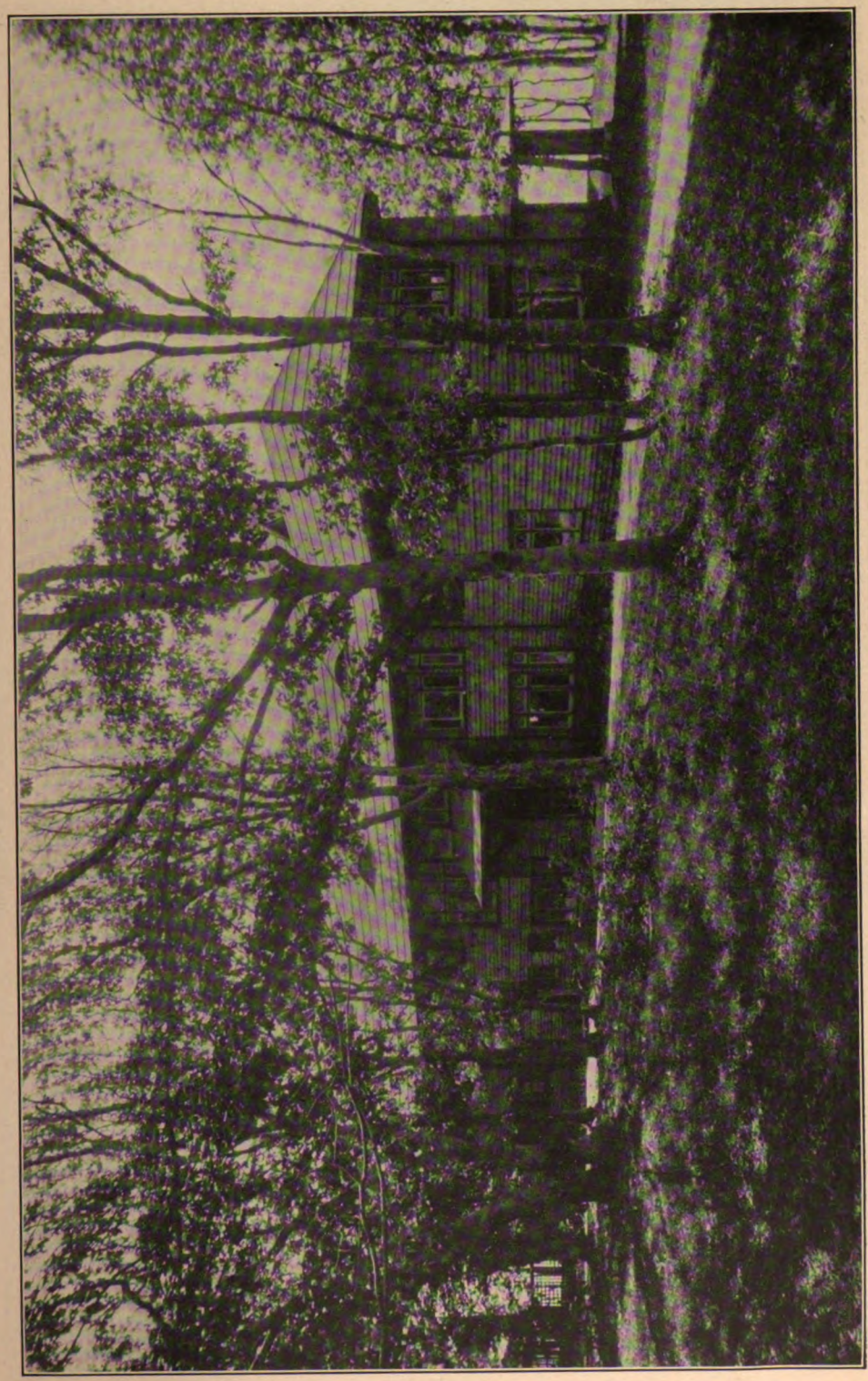
HOUSE OF MR. H. B. SHEPARD.

Putnam & Cox, Architects.

Marion, Mass.

This house is situated on an eminence commanding an extensive view of the ocean. Its situation has led the architects to plan and design it so as to make the most of the view.

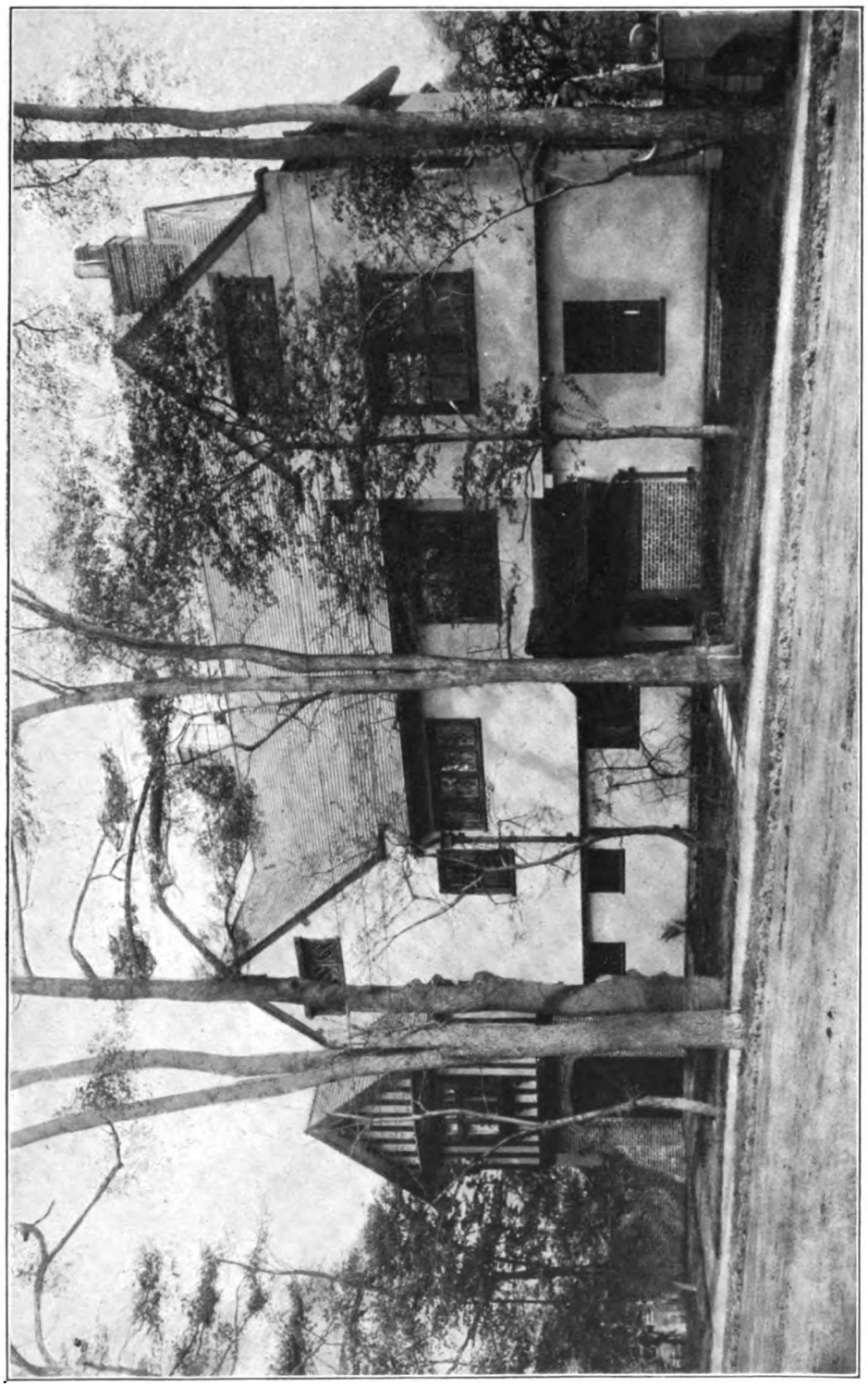
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HOUSE OF MR. H. B. SHEPARD—VIEW TOWARDS THE OCEAN. Putnam & Cox, Architects.

Marion, Mass.

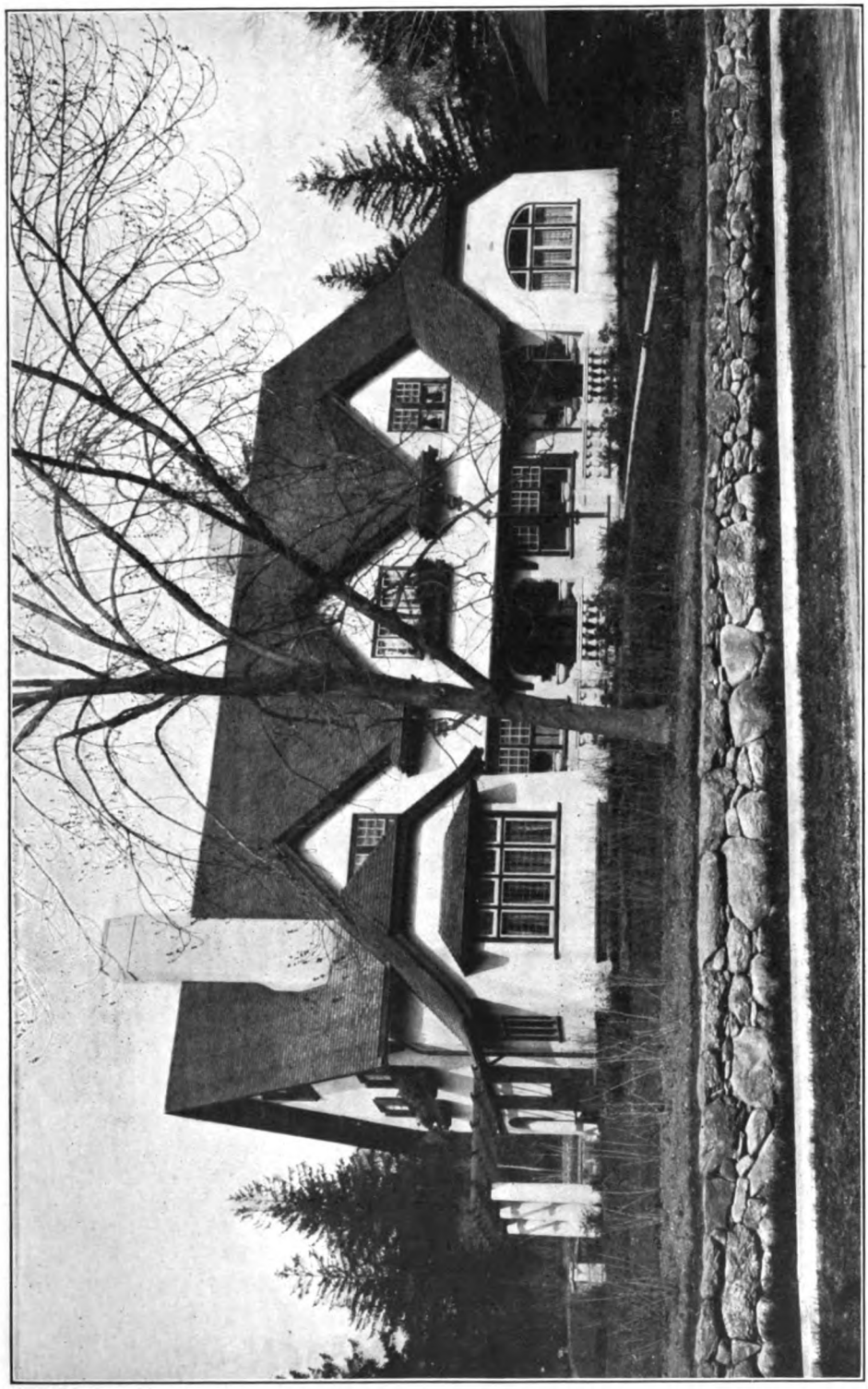
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HOUSE OF ALLEN W. JACKSON, ARCHITECT.

Boston, Mass.

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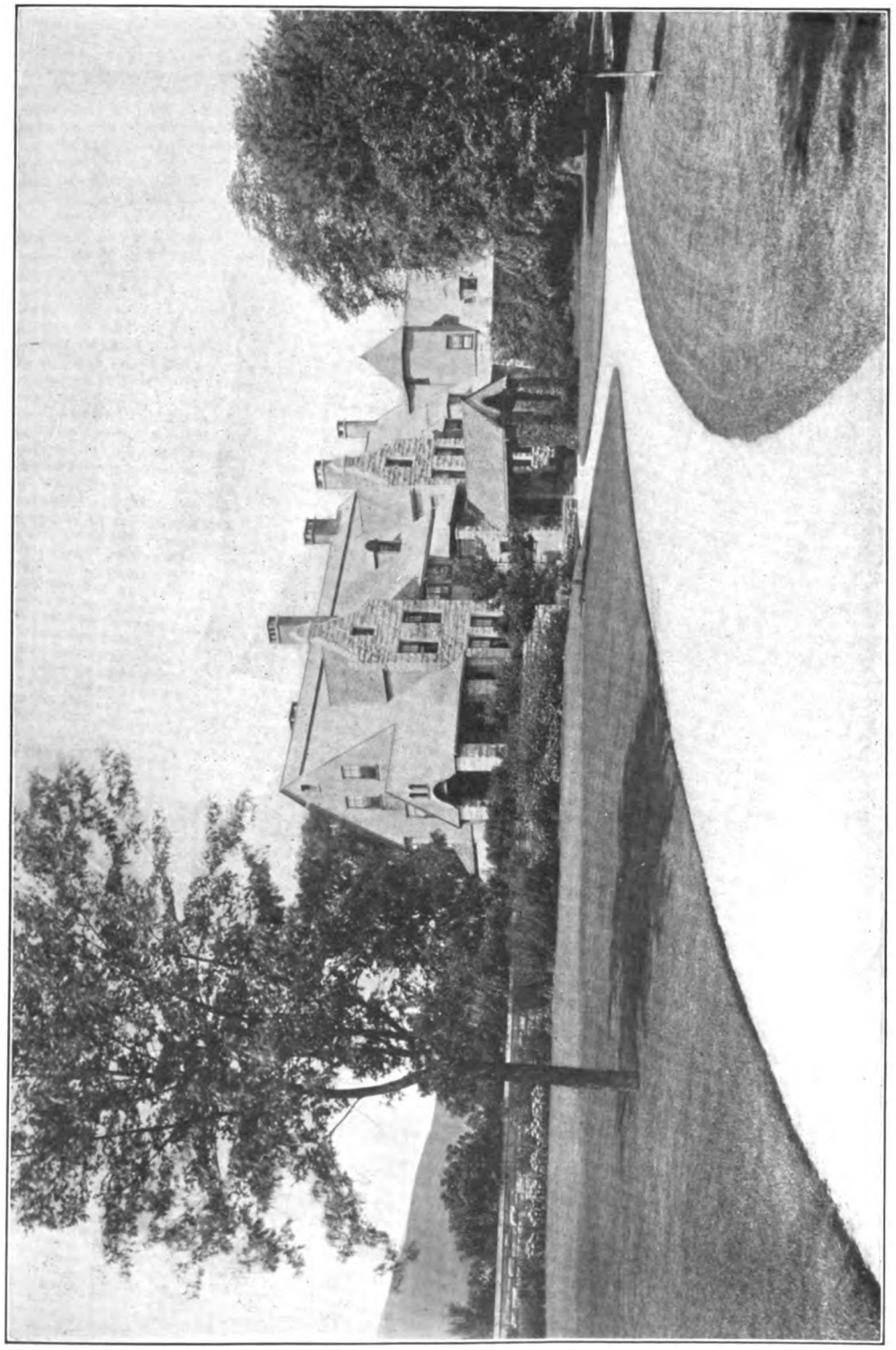


HOUSE OF MR. R. F. TUCKER.

Chestnut Hill, Mass.

Chapman & Frazer, Architects.

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ROBERT SCOVILLE HOUSE. Stone, Carpenter & Willson, Architects.

Chaplinville, Conn.

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NOTES & COMMENTS

STATE COMMISSION ON SCULPTURE

In Connecticut a State Commission on Sculpture has lately been appointed. A letter describing the purposes of the experiment—for we believe no other State has such a Commission—says that the Sculpture Commission is to "have power over all matters of design, material, and location"—matters which heretofore have been passed upon by local authorities, with the usual frequency of sad results. It goes without saying that to a commission of this sort only the highest class of appointments can be considered. If the appointees are not men of more than usual artistic sense and broadly sympathetic culture, it were far better that there be no Commission at all. In other words, position on the Commission is exceedingly honorable; but it is nothing else which is pleasant. The work must be of the most thankless character—seemingly futile in any case where the Commission's views are fully in accord with that of the local committee; very disagreeable where they are not. As to the sculptors, they probably have reason to rejoice in the Commission. At all events, other States will watch with interest the experiment.

A LONG ROAD AND OLD

An interesting organization that has been formed in California is "El Camino Real." Originally, the words were the musical Spanish name for the historic road that joined the twenty-one Franciscan Missions, together with pueblos and presidios, in the early days of the State. It was a continuation of the main road that came from Mexico by way of San Diego, and it extended clear to San Francisco, and forty-three miles beyond, to Solano de Sonoma, the most northerly of the Missions:—

"It's a long road and sunny, it's a long road and old,
And the brown padres made it for the flocks of the fold;
They made it for the sandals of the sinner-folk that trod
From the fields in the open to the shelter-house of God."

These shelters, or missions, were located about a day's journey apart; they are not in a straight line, but are scattered zig-zag along the coast, and thus the picturesque winding road leads back and forth to touch each one, sometimes close to the sea and again climbing the rugged mountains, or crossing the golden poppied plain. The purpose of the organization is to reconstruct and keep in repair this road, and to mark it all the way with sign posts bearing each a mission bell and the words, El Camino Real. More than fifty of the bell sign-posts have already been placed in Los Angeles, Orange and Ventura counties; and in the city of Los Angeles it has been arranged to erect an arch over an important junction point of El Camino Real beside the old Mission, and portions of the road have been included in the city's new boulevard plan. The importance of the organization's work, as a contribution to the local good roads movement, and the attraction of its project to the innumerable motorists of that playground of wealthy tourists, needs no comment and sufficiently explains the strong support it is receiving; and yet back of all that there is about the project a poetically romantic and historic interest that gives to it national appeal, and the more so, since along with the reconstruction of the road is going the restoration of the Missions.

TUNNEL STATION ADVERTISING

The President of the American Civic Association has protested against the advertising signs about the station platforms and lobbies in the Hoboken station of the North River tunnel. It is noted that "the proportioning and arrangement of the station are attractive and beautiful;" that "the succession of groined arches, the soft grays of the concrete work, the white tiles of the lining, are harmonious and agreeable;" but he thinks that "when the eye strikes the sequence of forty or fifty advertising signs about the station platforms and lobbies, there is a disagreeable shock," and even the Rookwood tile borders which frame the signs do not, to his sensitive eye, lessen the wrong that is done. He accordingly proposes that the advertising spaces be purchased in perpetuity, or at least for a term of years, by the city.

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He would not, it seems, have them kept bare. An article in "The Outlook" which states his position says: "The Pennsylvania Capitol has in its floor the unique Mercer historical tiles, preserving a record of the times and the State. If the Keystone State can thus place its memorials in the floor where all may see them, it is asked why Greater New York cannot work into the walls of these tunnel stations even more imperishable records of its life and its times? Rookwood borders are provided; why not have placed in these spaces a series of Rookwood tiles, akin to those shown in the Fulton Street subway station, thus suggesting history instead of corsets and drugs, and the genius of New York, rather than beer and breakfast foods?" It is an interesting, if—in this connection—preposterous suggestion. New York is not ready yet—perhaps not sufficiently educated—to buy valuable advertising space over in Hoboken on which to picture the city's history in Rookwood tiles. But there are other tunnels under construction, and other stations—especially on the New York side—to be built and furnished, and perhaps a lesson can be learned from the example which Hoboken points. But it is a pity that reformers are not more prone to look into the future and try to better it out of experience than simply to correct past errors. Tennyson's suggestion was not that men should attempt to resusitate their dead selves. Yet a great deal of well meant energy, which would be very useful for lifting purposes, is expended in that forlorn effort, instead of using the mistakes as stepping stones.

ADVISORY COMMITTEES OF ARCHITECTS

In these days when talk of city improvement is so general in the United States, a good deal of local pertinence attaches to a plea for advisory commissions of architects, which was the theme of the paper by Professor Reilly, director of the architectural school of Liverpool University, at last summer's "City Beautiful" congress in Liverpool. He spoke with special favor of the Parisian scheme, which he illustrated by the instance of the revision of the building laws in 1896. Seven officials were responsible for this report. They were: "Two municipal councillors, the building surveyor, the chief of the department which deals with building lines, the chief engineer and the honorary architect of the town of Paris." But to these seven there were added "sixteen other outside architects of distinction," the idea being to insure to the city the best professional advice. Says Professor Reilly: "Such a commission, it will be at once seen, would possess enormous weight. It dared to legislate on many other matters beyond those affecting the health and safety of the public. It imposed a large number of restrictions on buildings which we have not arrived at in England, but it did them with knowledge of the effect to be produced." As an illustration of that, he noted that the limitation of height was supplemented by a requirement that "the roof is to be contained within a quadrant of a circle of given radius"—a very important matter, since masses of roof seen against the sky may be a dominating feature of the structures on a wide thoroughfare. But it is just because there is the probability that an advisory commission composed solely of eminent architects would impose restrictions, which owners and builders are likely to deem unnecessary, that there is so poor a chance of having such commissions appointed here. In Edinburgh a compromise plan, which Professor Reilly says works well, consists in having a "Guild Court," which is "largely composed of architects," and requiring that the designs of the exterior of all buildings to be erected be first submitted to it for approval, together with a statement of the materials to be used. The advisory committee, it is interesting to note, has lately been made use of in London, by the Crown, in dealing with its Piccadilly and Regent Street property. Sir Aston Webb and Mr. Belcher were invited to form a committee to advise with the official architect, and the result is a promise of harmonious construction for the whole length of Regent Street.

AWAKENING OF DUBUQUE

Following the making last autumn of a report by Charles Mulford Robinson on the improvement possibilities of Dubuque, Iowa, there has been an awakening there of public spirit which has resulted in two acts that are finely suggestive. The point of the episode is that Dubuque is not a typically progressive Western town. It is a little place, which strikes one as like an old man content to settle down into a comfortable humdrum existence, with all the youthful fires of ambition burned out. But the report found some sparks which it blew into life. A topographical feature of Dubuque is the bluff, which appears and reappears in picturesque wall of rock,

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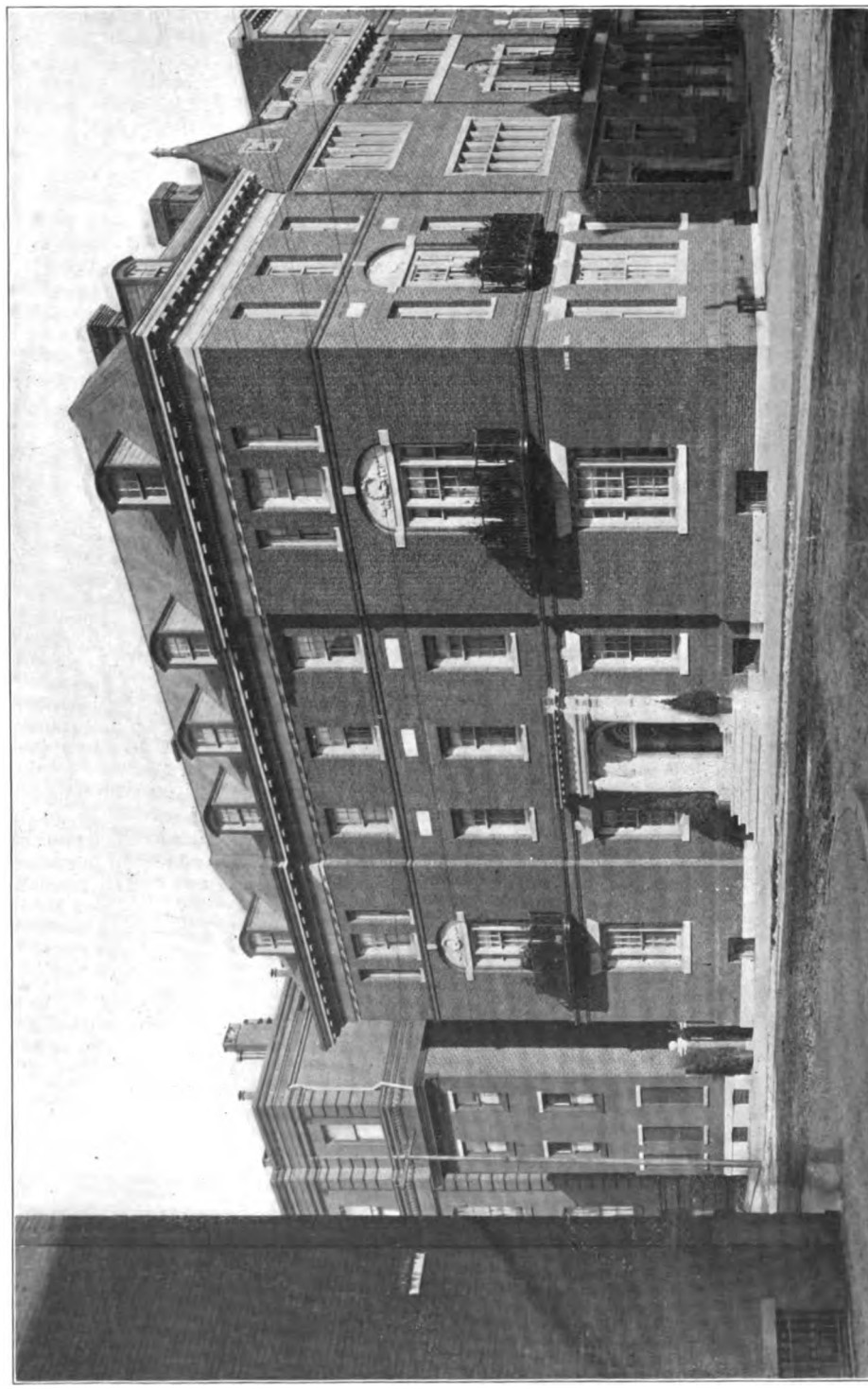
now on the street margin and now in back yards to which it makes a high, beautiful and mighty division line overshadowing the little houses beneath. The only use that has been made of these bluffs is now and then to perch a billboard on them; but the report having pointed out their aesthetic possibilities, the civic division of the Women's Club has purchased one of the most striking of the street bluffs, has removed the billboards, planted vines and ferns upon the rocky face, and is about to dedicate the summit—which is a great viewpoint—to the public for a park. And the men, not to be outdone, have undertaken a yet bigger thing. Above the city the bluff line comes to the river's edge in a great precipitous promontory, called Eagle Point. It commands a far view up the Mississippi and down upon the city, and back from the point rolls away in undulations, partially wooded, so that from the town side it is easily accessible. Mr. Robinson emphasized the peculiar fitness of the site for a park, and urged its acquirement. But the city has no park commission. Accordingly a group of public spirited men secured an option on the property, some 85 acres, enabling them to purchase it for $20,000. Now they have called for $15,000 in popular subscriptions, doing their own full share, and have asked the city to appropriate annually for four years $2,500—or $10,000 in all, with which to make the purchase and begin the conversion of the property into a park. The title remains with the present owners, until the land is fully paid for. Then it passes to the subscribers, banded in a park association, and to the city, to remain until the tract has been made indeed a park, when full title will be given to the city. The idea is that the city's appropriations shall come out of the annual budget, so requiring no special tax levy; and the reason title is not at once given is that the subscribers wish to insure the making of the park before they relinquish control of the tract.

BUILDING PRINCE RUPERT

References that are little more than incidental are to be seen now and then in the newspapers to Prince Rupert, the model city, which the Grand Trunk Pacific Railroad has undertaken to construct in British Columbia for its Pacific terminus. The contract for planning the city has been given to a firm of landscape architects—unnamed at this writing—and is said to be the largest of its kind ever awarded, a wholly credible statement. Cities are not built to order very often, and to plan a whole one from the beginning would necessarily be a big job, and an uncommonly interesting opportunity. There is a chance to put to practical test all the theories as to how cities ought to be built. But that all may be fairly tried, some architectural advisers should be associated with the landscape men, so that there may be model building laws as well as model streets and parks, that artistic squares may not be marred by the presence of grain elevators, and that some clever draughtsman may have chance to prove, in the designing of watertank and roundhouse, that the curve is the line of beauty. This would make the city far more interesting and important as an object lesson. It is a curious circumstance, by the way, that none of the recent "model" cities seem to succeed. Zion, to use the vernacular, went to glory very shortly. Dalny, of which one thinks at once in hearing of Prince Rupert, was ill-fated in spite of its artistic plan. The "Garden Cities" are only villages. Gary seems likely to succeed, but its promoters snapped their fingers at the art and theory of city building, and its plan is devoid of interest. So the list, not a very long one, might be continued. Washington, of course, is an encouraging exception; and up in the wilds of Northern Michigan and out on the deserts of Arizona the experiment is being tried, but one cannot look in such environment for very glittering results—and neither of the places is more than a town. It would seem that the incidental circumstances that make a successful city the hotch potch which it is, may be after all pretty important factors in its success.

But to go back to Prince Rupert, the site is on an island about 50 miles from the southern extremity of Alaska. The surrounding country is of great grandeur, presenting a panorama said to be quite Norwegian. On the island itself there is a hill that rises to a height of 2,300 feet, which being from sea level justifies the term "mountain" that has been given to it. The site available for the city is something over seven square miles, but it will not all be immediately developed. The harbor is very fine and can accommodate an enormous shipping. A direct channel more than half a mile in width connects it with the ocean, while the city's shore-line is in the shape of a crescent five or six miles in extent. The ground slopes irregularly upward from the harbor front, and the plan is said to contemplate putting the shipping and wholesale business

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RESIDENCE OF MR. JNO. C. BELL.

22d and Locust Streets, Philadelphia, Pa.

Horace Trumbauer, Architect.

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on the first level, which rises to seventy-five or one hundred feet—the shores are very bold, so that the cost and difficulty of dock construction is much reduced; to place the retail business and public buildings on the second level, which is a ridge with an elevation of about two hundred feet; and the residences back on a third level, which is about one hundred feet above the sea level. It is thought that an island to the west will be also planned for residential purposes, and that the mountain, in the center of the island on which is Prince Rupert, will be a public reservation.

THOUGHTS OF CANADIAN ARCHITECTS

The eighth annual volume, dated June, 1908, of Proceedings of the Ontario Association of Architects, has come from the press. It contains in full the papers, discussions and after dinners speeches of the recent convention, and there is in the whole a surprising amount of meat. But a large number of subjects are touched upon, so that it is impossible to cover adequately in a paragraph the contents of the volume. Three subjects especially were under discussion: (1) A proposal to form a Dominion Association of Architects, (2) the improvement of the city of Toronto under the plan of the Guild of Civic Art, and (3) architectural education.

Of the first subject, the president, Edmund Burke, spoke in his annual address. The matter was proposed in the president's address a year ago; it had been warmly seconded by two architects from Quebec at the annual dinner in Ottawa, and at the call of a "Provisional Board" formed early in the summer, a congress of Canadian Architects met in Montreal in August. At this time the "Institute of Architects of Canada" was organized. The council was instructed to procure a charter from the Dominion government and, by a practically unanimous vote, to see that the title "Architect" was restricted to qualified men. Around this point, with its legal complications, there has followed a great deal of discussion.

With regard to the city plan for Toronto, there was a formal paper on the Waterfront, and several after dinner addresses on the general subject. The most interesting points brought out were that an earnest effort is being made to secure "a permanent park commission," which shall have charge of the carrying out of the plan; that the aid of Sir Aston Webb had been enlisted in arranging some details of the Toronto plan, and that it is intended to get more help from him. The further interesting statement appeared that while the original purpose of the Guild of Civic Art was "to educate the public taste in matters affecting the beauty, convenience and health of the city," it had recently been found that public opinion in these regards is now so advanced, and public sentiment is so unanimous in favor of the subjects which the Guild has been agitating, that there is needed not so much public education now as the devotion of attention to some scheme whereby the unanimous public sentiment may become effective. The permanent commission is the scheme in mind, and it is proposed to secure the very best possible appointments to it. As to the need of the commission, it was pointed out that the city improvement plan was in readiness and that its adoption by the city was easy; but that the living up to the plan, after it had been adopted, and its carrying out through a period of 10, 20, 30, or 40 years, was a far more difficult matter, and required the offices of a commission of which the personnel would not be liable to change at every election. It is desired that the commission have power to acquire property, to expropriate property, and to issue debentures for the payment of it.

As to architectural education, the most serious contribution to the subject was a paper by W. S. Maxwell, of Montreal. It contains a résumé of the work in France, England, the United States and Canada.

THE PASSING OF JOHN L. SMITHMEYER, ARCHITECT

Were it not that the Library of Congress stands in its might in our National Capitol, one might feel that John L. Smithmeyer's light had failed. "If you want to see my monument look around you," says Sir Christopher Wren's epitaph in St. Paul's, and though this poor old architect died in March, at the age of seventy-six, in Washington hospital, we cannot deny that he was a success in spite of his poverty and temporary obscurity, for the building is there to which he devoted his best years to bear ample testimony to his ability and that of his partner, Paul J. Pelz.

At his last hour well could he say, "I have fought the good fight, I have kept the faith, I have finished my course." These men contributed many years of their prime in developing this great plan, holding their advantage gained by skill and study in spite of continued competition and while in the end the actual erection of the structure was

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denied the firm and the junior partner's services utilized in a subordinate capacity, theirs was the honor of intellectual and in part artistic development of this great building. The entire matter has been amply presented in the architectural and daily press in bygone years. It is all a matter of recorded history for those who would read its details. It has all been discussed pro and con. To resurrect it now would not bring the dead to life or right the wrong of a generation ago, but here we would pay our tribute to this man's steadfastness of purpose and would place this little sprig of laurel upon the grave of this brave and apparently unfortunate architect. May he rest in peace, which he has so well earned.

Let us hope never again to have such a record in this land, and though profitable may it be in the lesson learned, may this man's sacrificed career bring forth the fruits of a clearer conception of what we owe to the designer of a great public building. Those of his fellow-architects who generously gave their time and made the effort to secure the payment of the claim which was duly awarded but never paid may feel that this attitude on their part may at least have been a comfort in his declining years to this adopted son of the Republic, who suffered much at the hands of certain of our lawmakers, who will soon be buried in oblivion.

AN "INSIDE" CITY CHURCH

What to do with the city church has become an urgent problem for church architects. The conditions which have transformed or are transforming our cities are all of them unfavorable to such a predominance of the churches as their builders must hold to be desirable. In business quarters the very melancholy example presented by Trinity Church and Trinity churchyard must give pause to the votaries of traditional church architecture. Here the temples of Mammon crowd about and overgrow and mock and hide what, when it was finished two generations ago, was the most conspicuous landmark of Manhattan. And it is the very reservation of the churchyard, and the probability that it is to be a permanent reservation, which enables the secular builders to do this despite to the sacred edifice, by assuring them of the light and air which it is highly unlikely that, if they had to secure at their own expense, they would have built at all, or built to such a height as to humiliate their victim. Trinity "views its own feather on the fatal dart." The instance is cruelly typical. Not so much worse than that which has displaced in favor of a thirty-story secular tower the church of that Madison Square which, when Trinity was built, was hardly yet even a residential quarter. In what quarter of Manhattan, in fact, can an architect now feel safe in erecting a massive church, meant to endure, and crowning it with the "heaven-pointing spire" which used to be the most monumental and characterizing of its features, but which now Mammon, even should the quarter remain residential, in the person of the promoter of apartment houses, is liable to overtop and expose to derision by putting alongside or opposite a huge brick parallelopiped bigger than itself in every dimension.

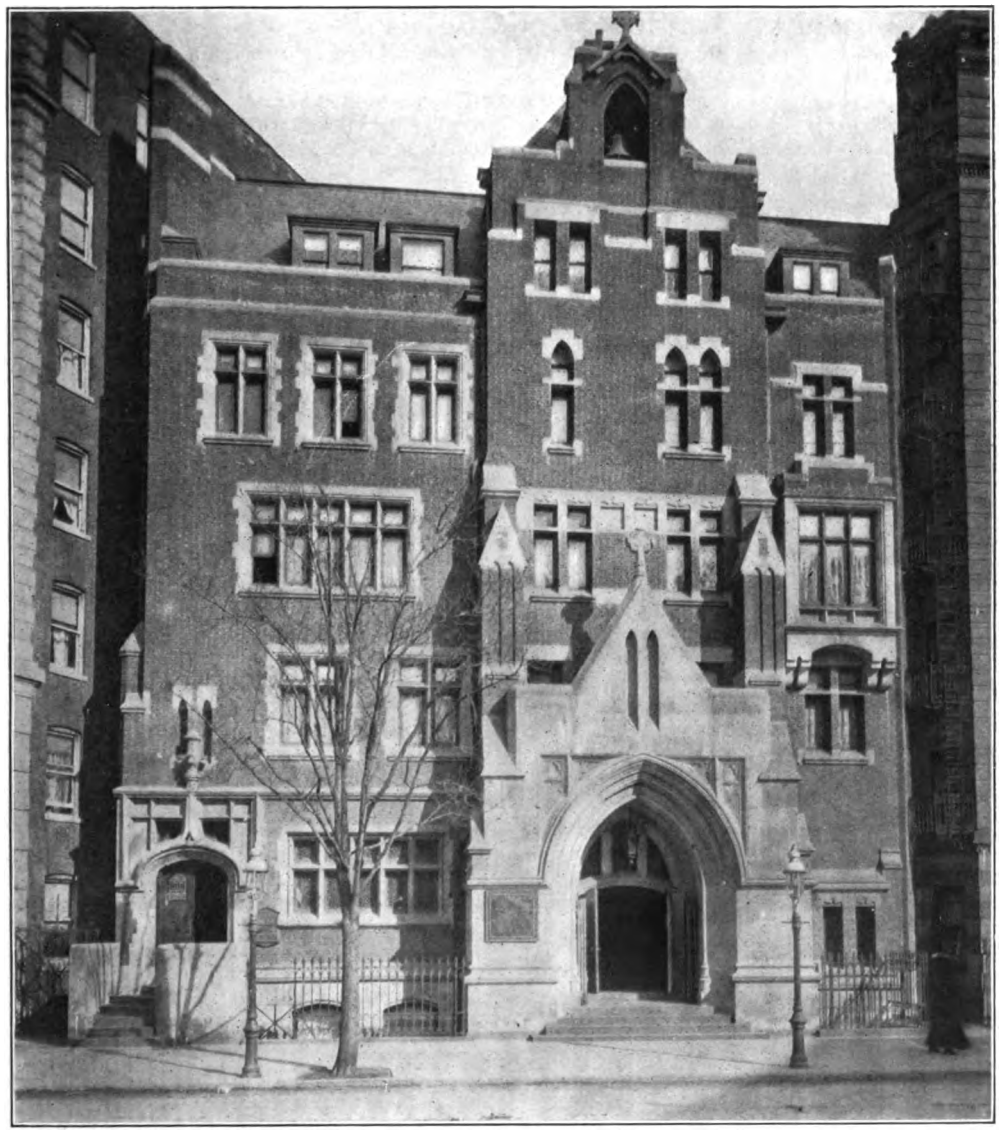
Clearly the spire "must go" from the city. No judicious architect will think of projecting one, or of attempting to signalize a church building any more by its altitude. He must hold his own in the competition with secularity, if at all, by superior simplicity and superior scale, such as, to be sure, in a secular building has been attained in the savings bank of a single story at Twenty-second Street and Fourth Avenue, such as in a church building has been attained in the New Madison Square Presbyterian Church, which in that respect is to be acclaimed as exemplary. Fortunately that is not so difficult—that superiority in scale. For the skyscraper, commercial or residential, is by the nature of its being an edifice, made up, however great its aggregate magnitude, of a multitude of minute cells, and there is no more chance of giving it effective scale by an expressive treatment than there is of giving such a scale to the honeycomb which it resembles and imitates, being in fact a human hive. With a corner lot and a considerable area, the city church may still in a measure hold its architectural own.

But how about the church which is unable to fulfil these conditions, to the church which is restricted, as the majority of our parish churches are, to a frontage of two lots, or fifty feet, and to an "inside lot" at that? To make an impressive front under these conditions, when it is part of the block front, when it may be withdrawn but cannot be advanced, is a serious architectural problem. To secure effective lighting between the solid sides of the overtopping and adjoining buildings is a serious practical problem. These two problems have been

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successfully solved in Mr. Kimball's very scholarly and effective "Catholic Apostolic" Church in West Fifty-seventh Street, where the nave is narrowed to half the total width, and the lighting secured from its own clerestory and those of the transepts of which the ends, abutting on the adjoining walls, are necessarily "blind." This work is the more admirable inasmuch as, being some twenty years of age, it can scarcely be supposed to have been designed in prevision of the skyscraper, which, nevertheless, it circumvents so far as the supply of light goes.

But the "Catholic Apostolic," or as most persons would incline to call it, the "Irvingite" Church, is apparently a place of worship merely. It gives no sign of being the "parochial plant" which the most useful city parishes must now and hence-



ALL SOULS' CHURCH (ANTHON MEMORIAL).
St. Nicholas Avenue, near 114th Street, New York. Janes & Leo, Architects.

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forth possess. The problem of providing for such a plant with the same dimensions and conditions and restrictions the architect did not solve, for he did not tackle. Yet it is a common and an increasingly urgent problem. The solution of it offered by All Souls' (Anthon Memorial) Church in St. Nicholas Avenue, near 114th Street, will be agreed to be interesting. Here the restricting walls which form the crux of the problem are forced upon the view by the recession of the ecclesiastical front, for we can hardly call it a "church front," and this recession, it seems, is necessary to enable the introduction within the building line of the desirable and architecturally necessary projections of porch and steps and "stoop," while it serves the further purpose of giving some distinction and separateness to the front. The church, it will be seen, is denoted only by the entrance at the bottom and the bell-gable at the top. But these suffice quite unmistakably to denote it. The remainder of the front is given to the "plant," in fact to a rectory, administration rooms, class and guild rooms, and chambers for resident parochial workers, twenty-six rooms in all, the whole front building being known as the "Edward Whitney House." Architecturally the front is in that half domestic, half ecclesiastical style which is recognized as monastic or "collegiate" Gothic, and of itself makes a grateful oasis in the desert of tenement-house fronts.

The arrangement is not altogether novel. In St. Augustine, the chapel of Trinity in East Houston Street, designed a generation ago by Mr. Potter, the church is at the rear, the "plant" at the front, and the designation of the sacred edifice is only an unmistakable church entrance and an unmistakable church spire. The connection between street and church is managed by means of an impressive and interesting corridor. Yet the arrangement is as yet as uncommon in churches as it is common in theatres. The majority of theatres in New York are designated as such only by their entrances and the actual playhouse left to be inferred by the passer. It may very well come to pass that the majority of the churches will come to be submitted to the same conditions. Even so, they will have the architectural advantage over the theatres that the front will "belong," and will visibly subserve pious uses, whereas the frontal buildings of the theatres are money-making commercial erections, "from the purpose of playing," having nothing to do with the object of the theatre, and so architecturally inexpressible as part of it, while it is quite possible to give an ecclesiastical expression to the front of which only the entrance denotes the church. This, it will be seen, has been done with a gratifying measure of success in the street front of All Souls', interesting and picturesque piece of Gothic that it is.

The front, of course, is abundantly enough precedented in domestic and collegiate Gothic. But the interior, the church itself, can hardly be said to be so precedented. In truth, if he is to do it properly and practically, and so to have a legitimate basis for his interior architecture, it seems that the architect must forget his precedents and rely largely upon his own resources. It is in most cases an unescapable requirement that he should build his church "to the limit" and occupy the whole of the back yard. In that case, how is the interior to be lighted? To be sure a pitched Gothic roof admits of dormers and lunettes, through which some light may deviously filter and straggle. These devices are employed in the edifice under notice to the greatest extent, let us assume, to which they are practicable. But the result is a light much too dim and religious to be satisfactory, the interior never being relieved of the necessity for some artificial lighting. This interior, it may be added, is a straightforward piece of constructional design, the extreme simplicity of which does not diminish its impressiveness. But the effect is, nevertheless, that of a crypt, and the modern Christian will not, it may be presumed, willingly revert to the practice of the early Christians and do his worship in catacombs. Neither is there any necessity. A church which occupies the entire available area of its site may yet be abundantly and directly lighted from overhead, at no other sacrifice than that of "style." And surely style, in the technical and historical sense, is a thing to be disregarded when the "weightier matters" of making a building suitable to its purpose come into consideration. And indeed it ought to be an interesting problem for the right architect to light a church interior from the centre and summit of each of its bays, and still keep it as Gothic as possible, to do, in fact what a mediaeval architect would have felt bound to do if the particular problem had come in his way. Meanwhile, the Anthon Memorial Church may be thankfully accepted as a pioneer in the way which "the construction of sheepfolds," as Ruskin has it, seems bound to take in American cities, and as in some respects a guide as well as a pioneer.

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Recent Books on Architecture and Building

THE ARCHITECTURE OF GREECE AND ROME*

This book has just come to us in a second edition revised and enlarged by Mr. R. Phené Spiers, co-author of the first edition published in 1902, with Mr. William J. Anderson. The volume gives a compact sketch of the historic development of architecture in Greece and Rome with a list of the principal historical events coeval with the various periods into which the subject divides itself. The illustrations have been considerably increased in number and the bibliography brought up to date.

The most important illustrations which have been added are: A description of the Palace at Cnossus in Crete; a revised account of the Tomb of Agamemnon at Mycenae, together with new illustrations of the same, including those of the columns, which, through the munificence of the Marquis of Sligo, have been set up in the British Museum; a series of plans of all the important Greek temples, including a general plan of those at Selinus; plans of some of the Roman temples, amongst which is one of those in the acropolis at Baalbec, hitherto unpublished.

SAFE BUILDING CONSTRUCTION†

Among recently revised books of interest to architects is Mr. Bergh's volume on "Safe Building Construction," which, as he says, "is a logical sequence of my former work on Safe Building."

"Methods of construction and building materials have changed so radically that this new book seems called for." Methods and materials have indeed changed since the publication of Mr. Bergh's first treatise on construction (which one finds on consulting the copyright page to have been in 1886) over twenty years ago. Indeed, so much has not only the art and science of construction changed but so much more knowledge of the subject is required of the architect and the constructor to-day that one can hardly agree with the sentiment expressed in a remark of Mr. Bergh's in another part of his preface: "While, of course, the work will be based strictly on the science of mechanics, all useless theory will be avoided. The object will be to make the articles simply practical." In this connection it may be remarked that one cannot be of the opinion that, because a more thorough knowledge of construction and therefore mechanics is to-day requisite to the successful architect, that he can encompass such a mastery of the subject by eliminating any of the theory not to say much of it. It is difficult to understand how a constructor can become more proficient in the art of construction by any system of "practical" rules or formulae if he fails to comprehend the very basic ideas underlying the stability of every structure. And how can the ideas be imparted but by what Mr. Bergh calls "theory." The word theory in its relation to architectural construction is something more than a way of regarding the subject; it is the subject itself, the conception, the substance. The rules and the formulae are but the shadow, a vaporous fabric from which the possessor cannot hope to gain the necessary capacity to construct beautiful, economical and safe buildings.

While more engineering knowledge is constantly required of the architect, the average treatise on the subject presents more the appearance of a steel company's catalogue than of a book of instruction for an artistic profession. Mr. Bergh's book gives much valuable general information on building matters, but it also contains much detail which it is very well for the architect to possess, but which is not essential to a proper understanding of the subject for his purposes. Of great value to architects and constructors would be a progressive and connected account of the broad underlying principles of mechanics in their particular application to the ordinary problems of building construction, written in an interesting way.

EUROPEAN AND AMERICAN COUNTRY SEATS*

An attractive and expensively manufactured volume this is, containing an excellent selection of country residences of European nobility and wealthy Americans, fully illustrated by photographic views and plans.

*The Architecture of Greece and Rome. By R. Phené Spiers. London: B. T. Batsford, 95 High Holborn. New York: Chas. Scribner's Sons, Fifth Avenue, 1907.

†Safe Building Construction. By Louis De Coppet Bergh. New York: The Macmillan Company, 1908.

*Country Residences in Europe and America. By Charles V. Le Moyne. New York: Doubleday, Page & Company, 1908.

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Here are represented such Italian villas as Lante and Medici and others no less important with all their wealth of tradition and in their architectural and natural splendor; there are the French châteaux of which typical examples might be cited in the names Azay Le Rideau and Versailles, that costly palace which was paid for by the lives of many thousands. The English places come in for a generous share of attention, being represented by some twenty-two examples, some well known as Hampton Court and Blenheim, familiar to American magazine readers; others less known to the layman are such as Mt. Edgecomb, Clevedon and numerous other architecturally interesting but less extensive establishments. America is represented by a dozen examples of all periods from Mt. Vernon and the Craigie or Longfellow house to such more recent places as Biltmore and Faulkner farms. The purpose and scheme of the book are clearly stated as being "to describe what the author considers to be the most interesting country residences in various parts of Italy, France, England and America . . . endeavoring to show the relationship of one to the other, and show the later ones were the outgrowth or development of the earlier; and also to show how much in the art of landscape architecture, as in the other arts, we are indebted to antiquity."

COMPETITIVE DESIGNS FOR CONCRETE HOUSES OF MODERATE COST

The American Association of Portland Cement Manufacturers publishes the premiated designs submitted in its recent competition for concrete houses which are estimated to cost from $2,000 to $4,500. The designs called for were of two general classes, one family detached with from three to eight rooms, and twin or semi-detached houses with an equal total number of rooms and costing for each part the sums expressed between the limits given above.

The designs consist of elevations and sections drawn, according to the program, to the same scale but, unfortunately, not reproduced at the same scale. They contain much that is suggestive in domestic planning and designing in concrete. In fact, one should like to see some of these designs executed if for no other purpose than to convince prospective owners of suburban houses that a higher standard of design than obtains at present is not only economical, but entirely within their reach.

BUNGALOWS, CAMPS AND MOUNTAIN HOUSES*

The recent interest by people of moderate means to provide for a short season's rest in the country, by woodside, or on lake or seashore, has called forth the architect's efforts to provide suitable abodes for such a purpose. A collection of such structures has recently been made and published under the above caption. The popularity of the subject is beyond question, but the percentage of well-planned and artistically designed houses of this class, thus far published, is not in proportion, we believe, to their demand. The collection before us contains some designs which are better than the average, but it would hardly be very difficult to make a better selection. The general arrangement of plates with plans shown under their respective exterior views is to be commended.

The Architectural League of America announces the date of the next convention of the league has been fixed for September 17, 18, and 19, at Detroit, under the auspices of the Detroit Architectural Club. It is hoped that the members of the league will avail themselves of this opportunity to be present at this convention, apart from the personal pleasure and benefits to be had by attending, but also to add to the interest and enthusiasm of the cause by giving it the sanction of their presence.

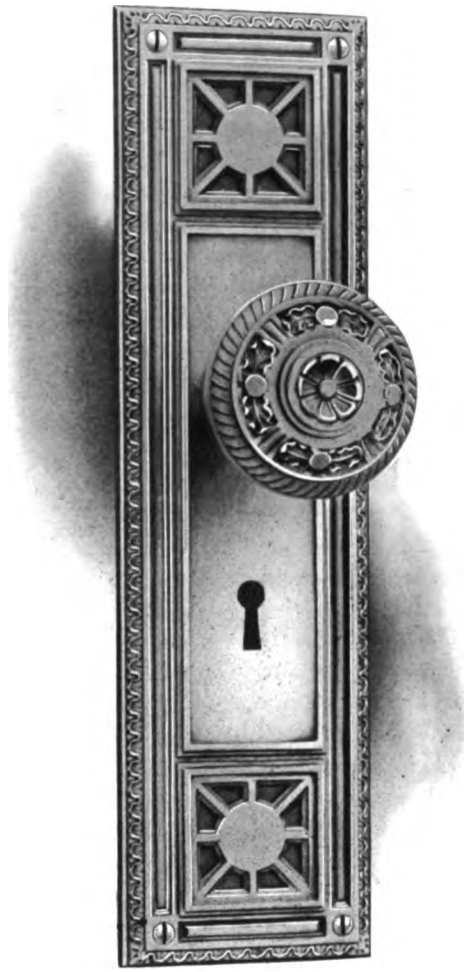
The revised Constitution and By-laws which was amended to meet the requirements and conditions governing individual membership which was established the first of the year, can be secured by applying to H. S. McAllister, permanent secretary, 729 15th Street N. W., Washington, D. C.

The design of the Carter & Holmes Building in Chicago, published in the May issue, was erroneously referred to as the work of George L. Harvey. The architects of this building are, as printed under the illustrations on pages 378 and 379, Nimmons & Fellows, of Chicago.

On page 430 of the June issue the architect of the E. M. Blunt cottage at Marshfield, Mass., should read William Atkinson instead of Thomas Atkinson.

*Selected and compiled by the Editor of the "Architects' and Builders' Magazine." New York: William T. Comstock, 1908.

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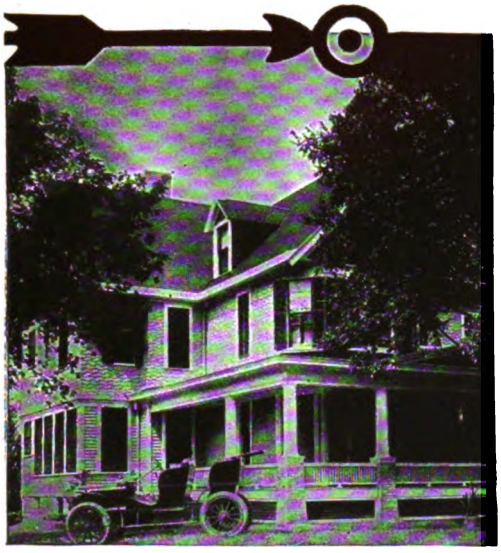
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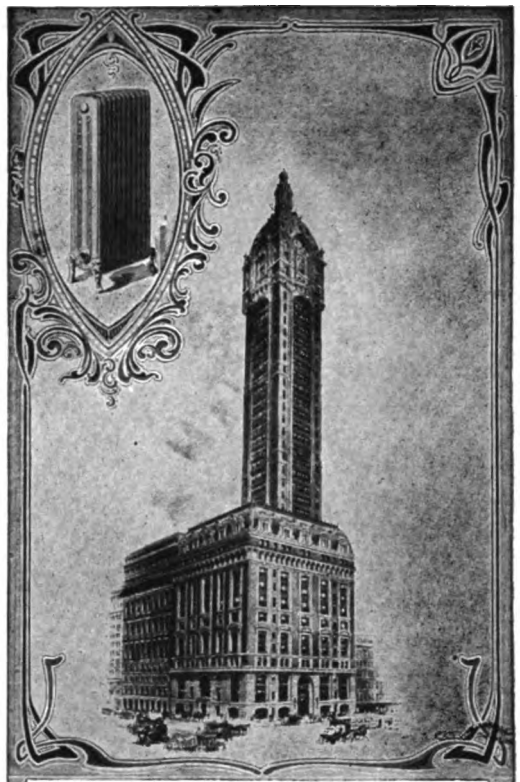
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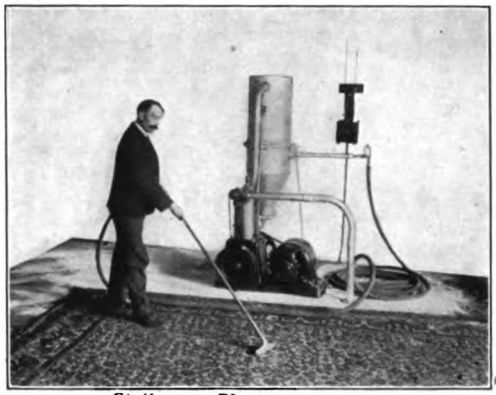
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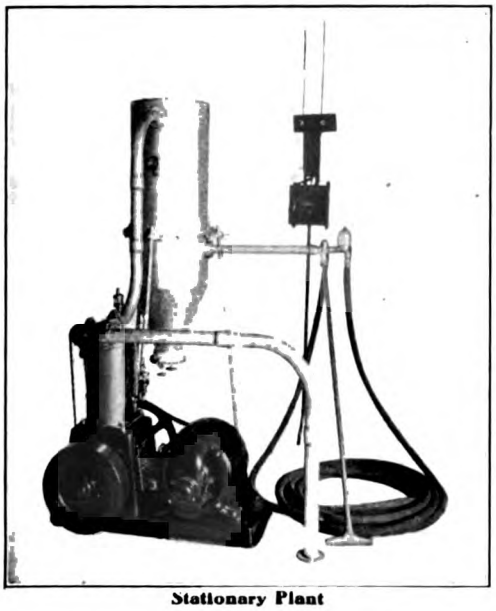


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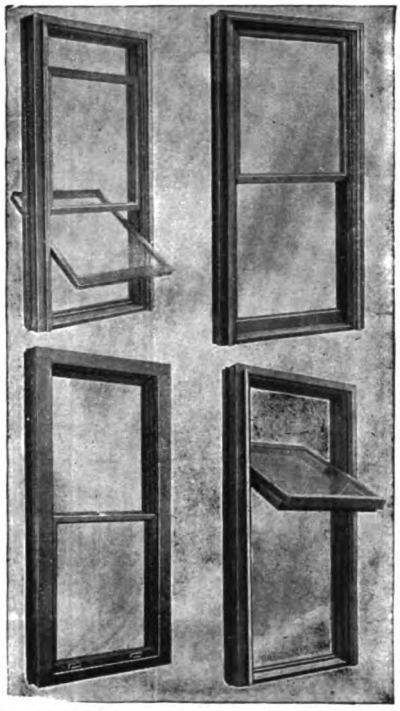
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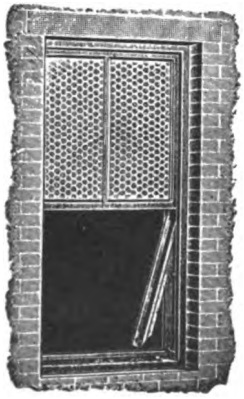
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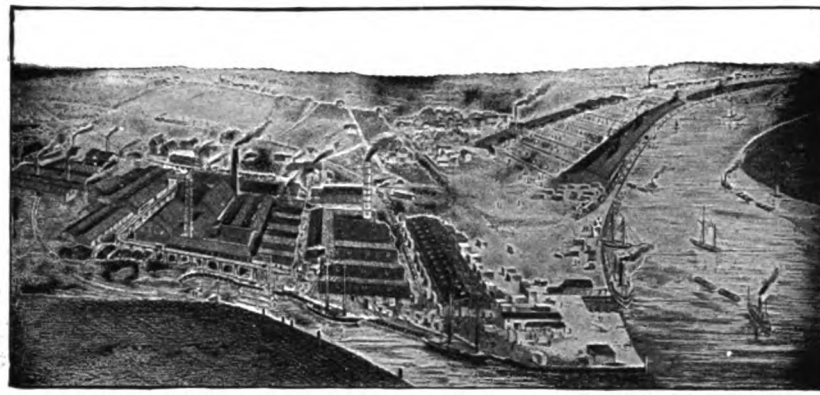
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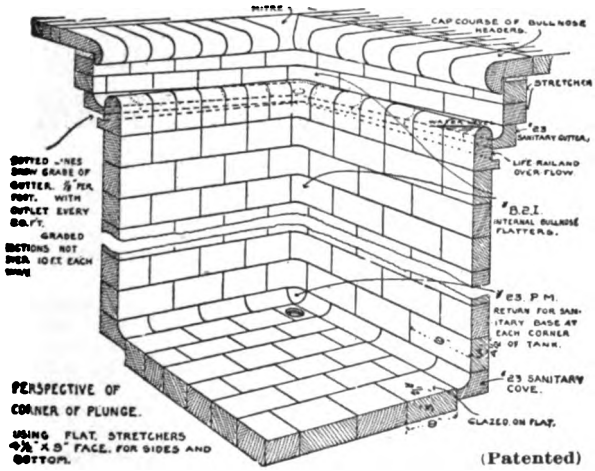
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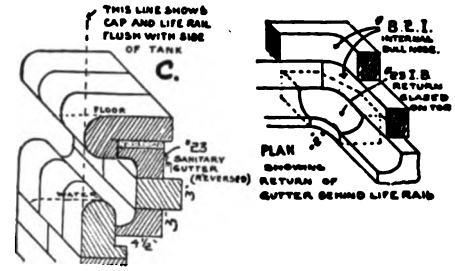
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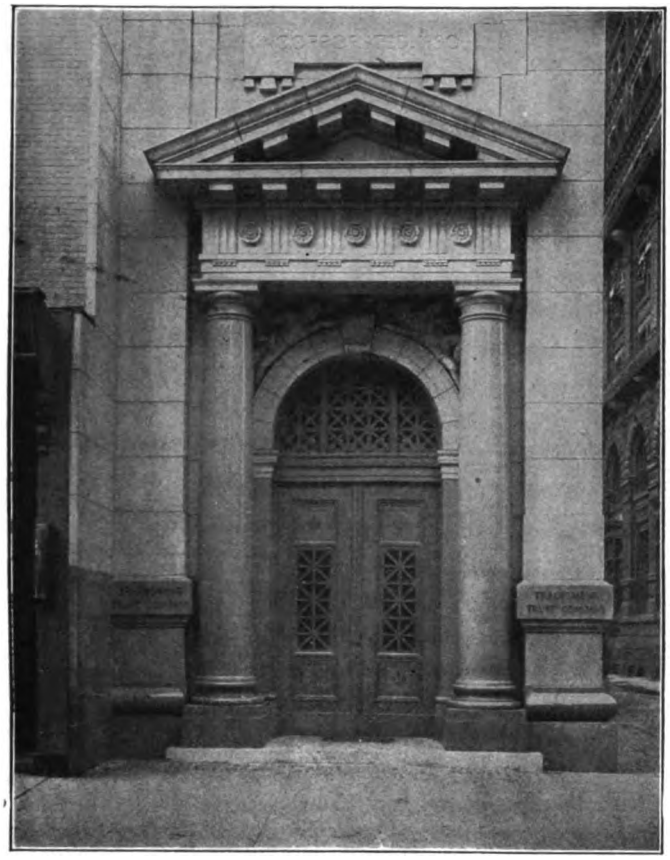
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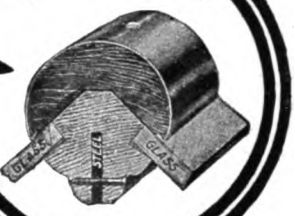
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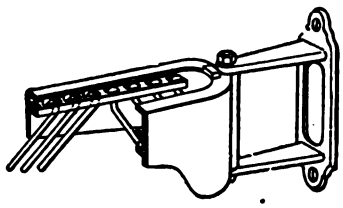
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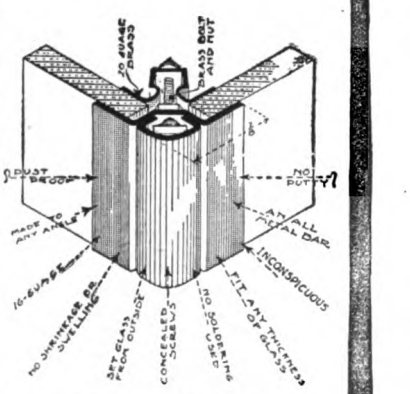
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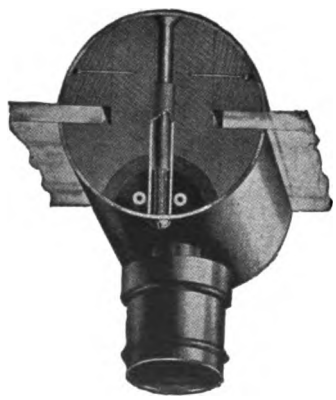


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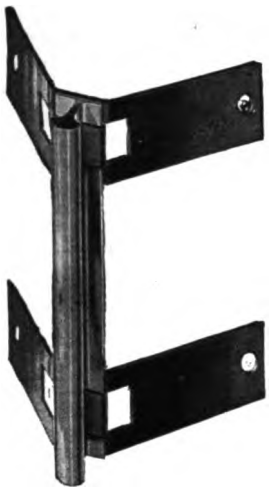
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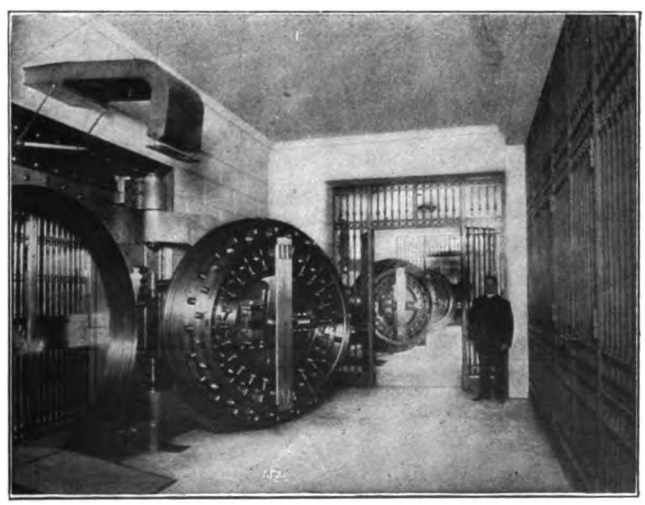
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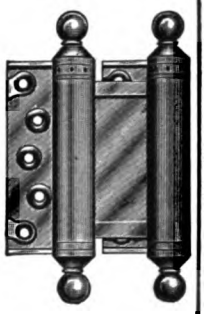
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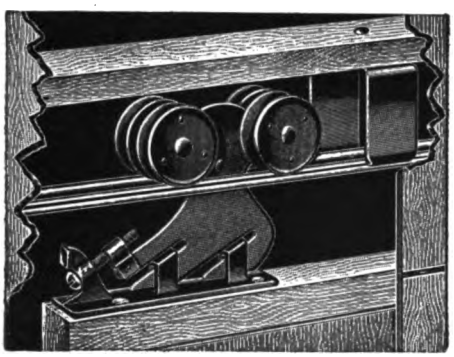
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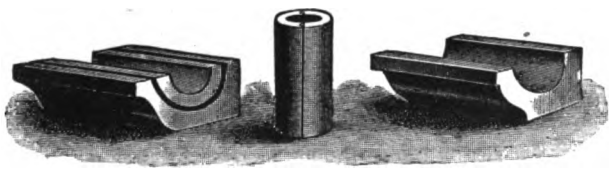
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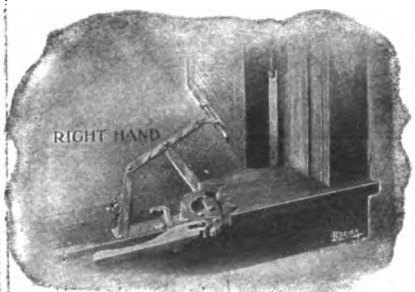


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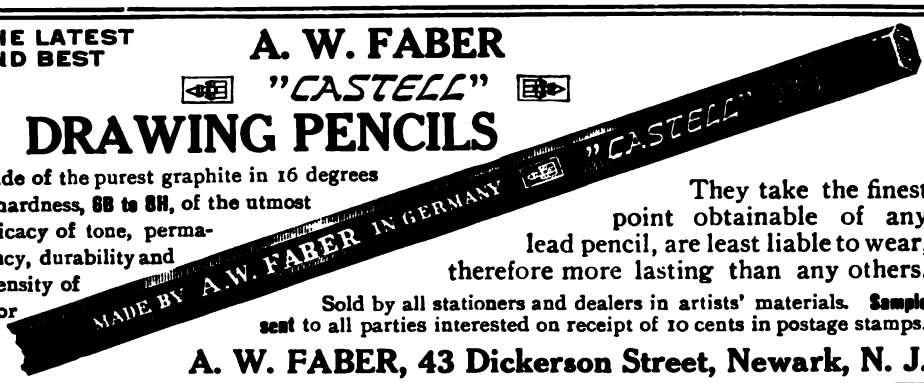
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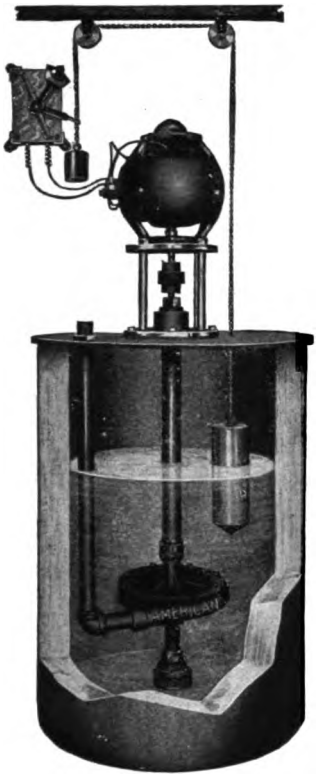
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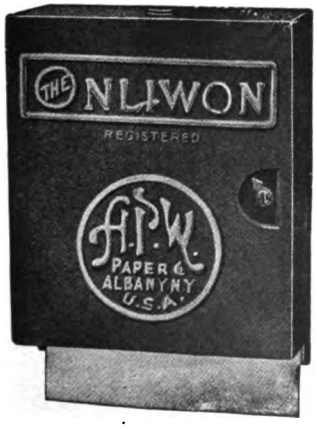
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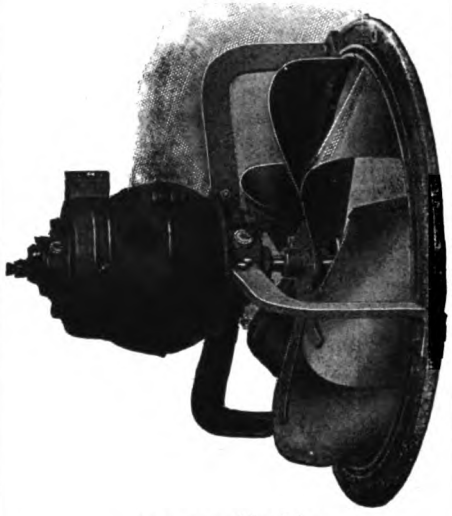
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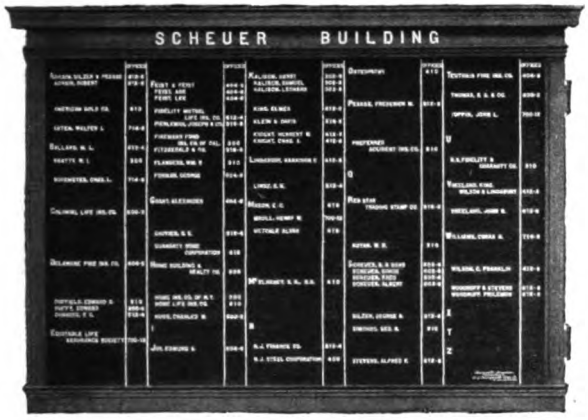
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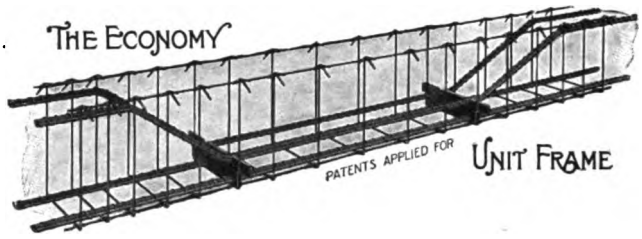
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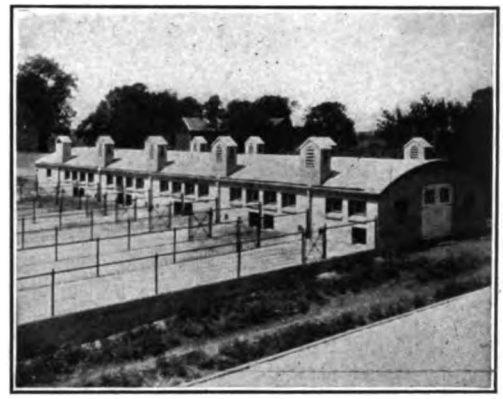
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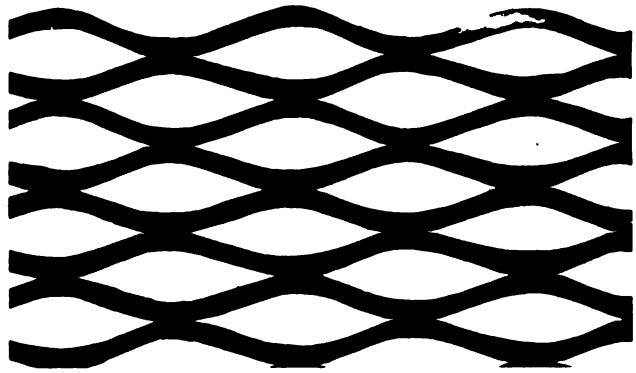
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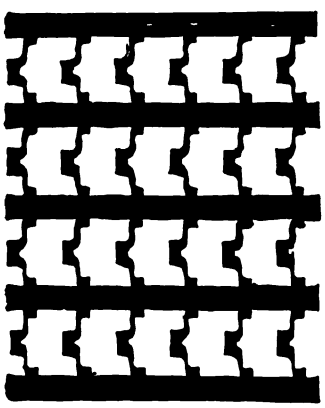
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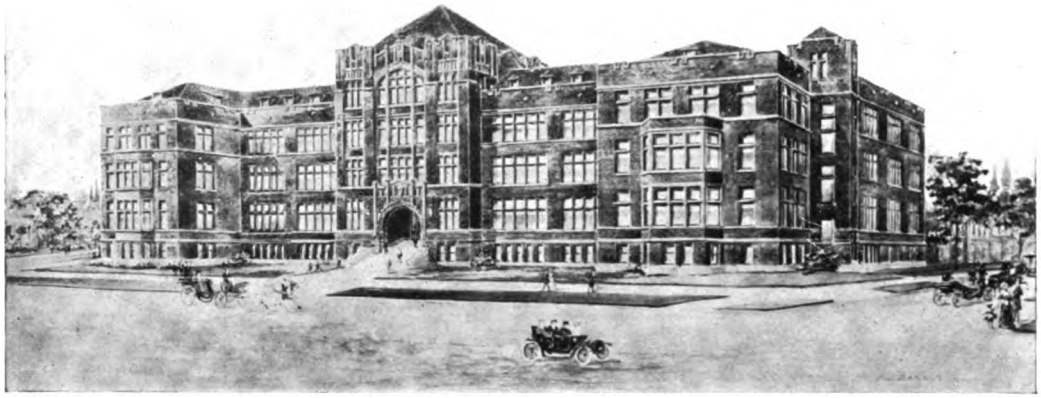
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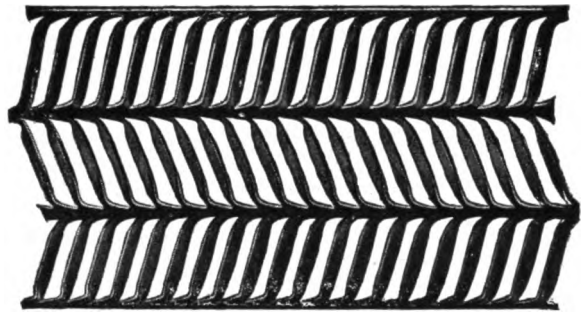
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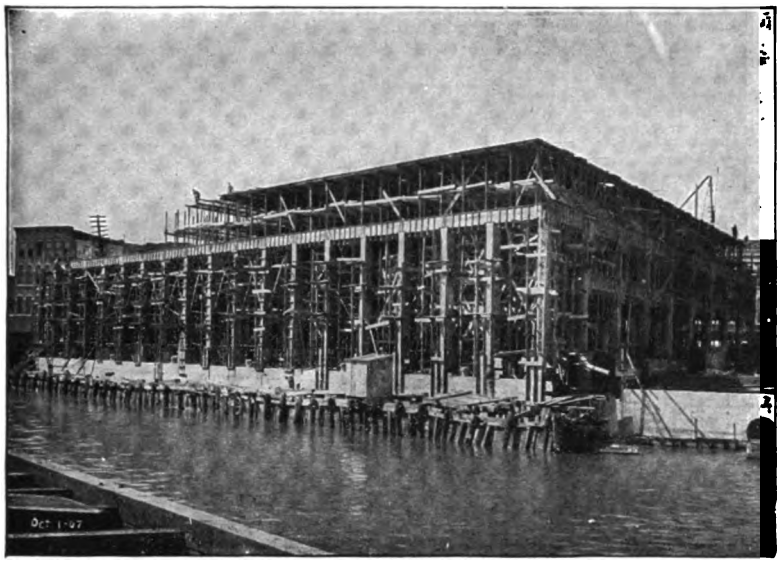
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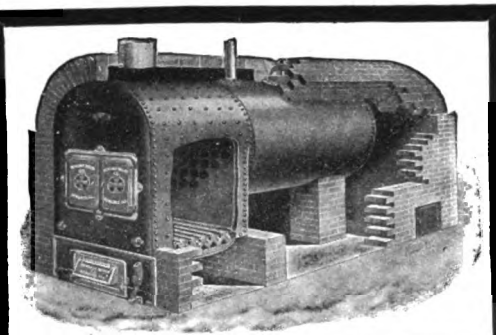
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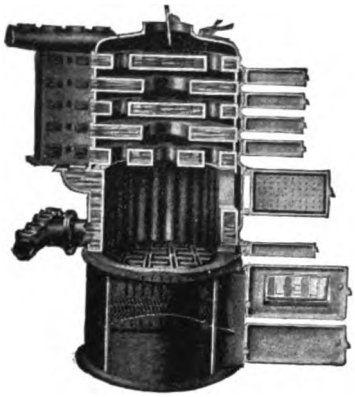
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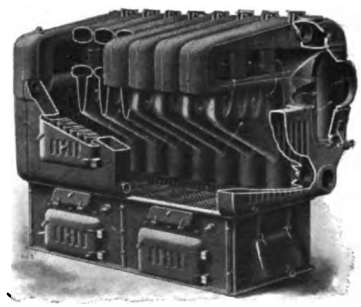
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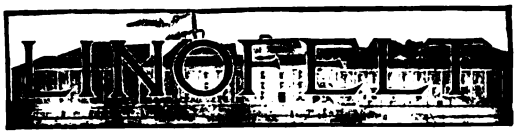
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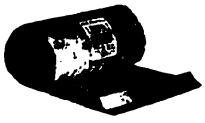
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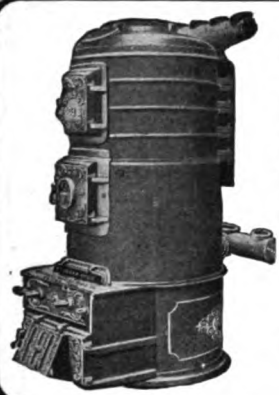
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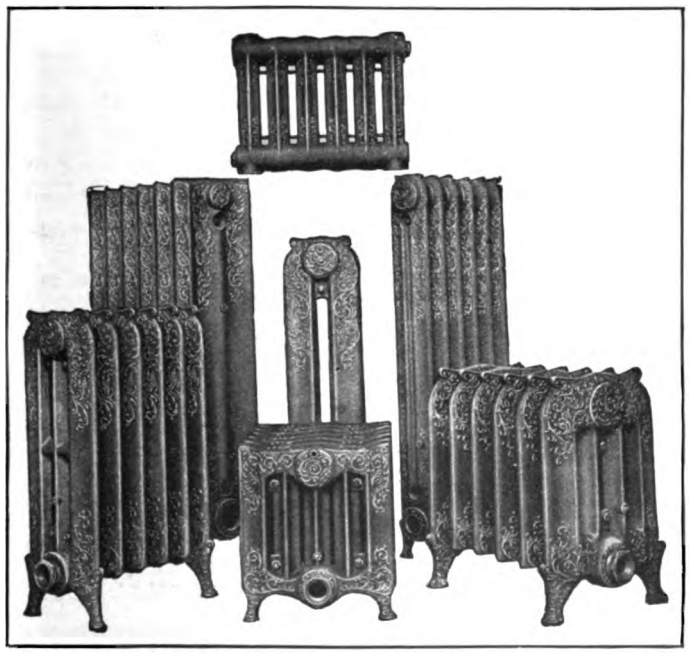
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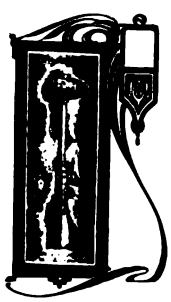
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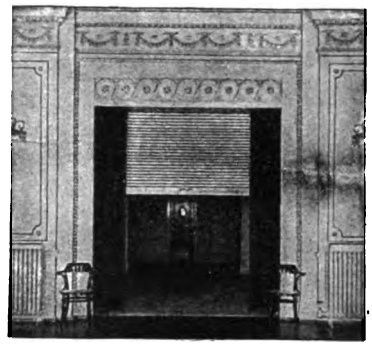
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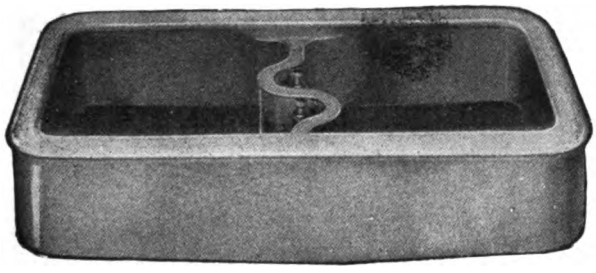
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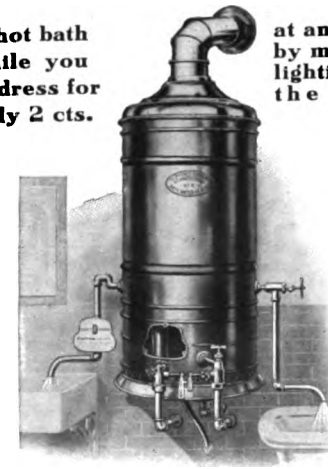
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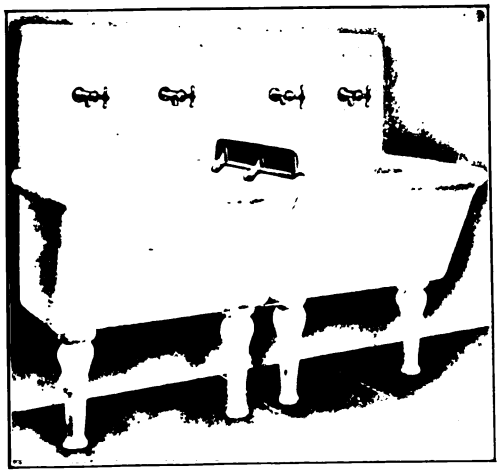
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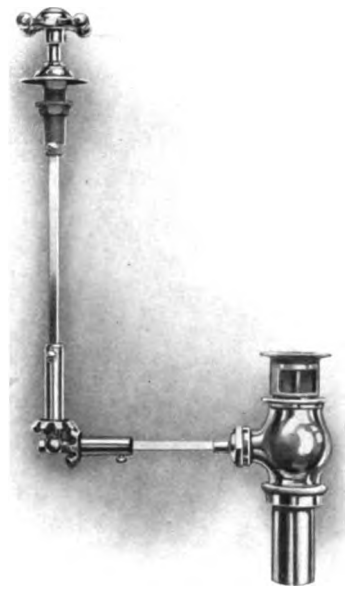


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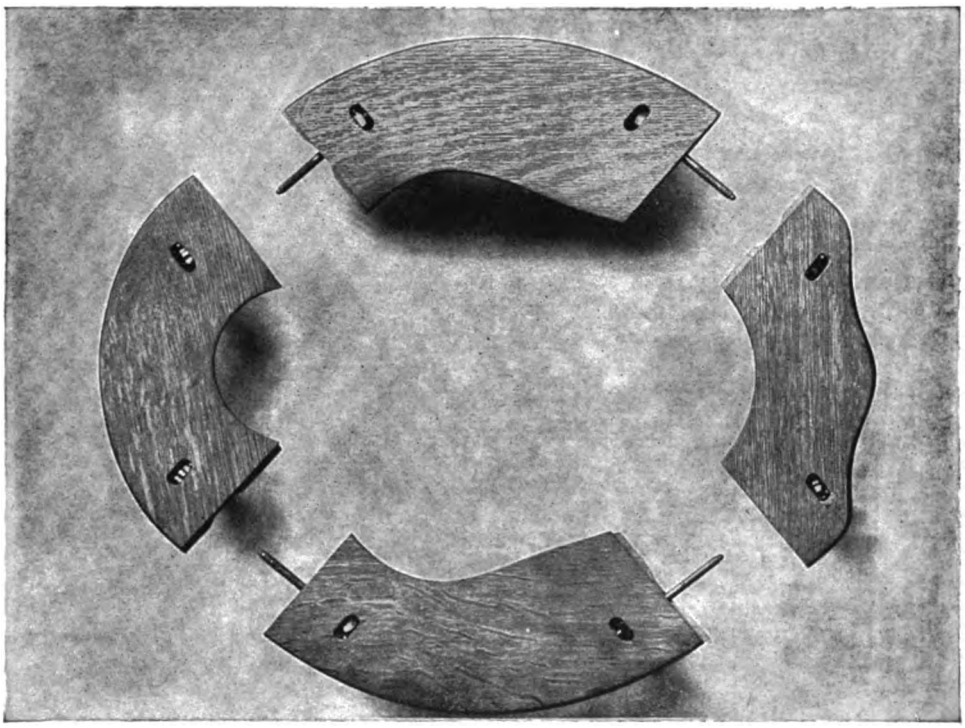
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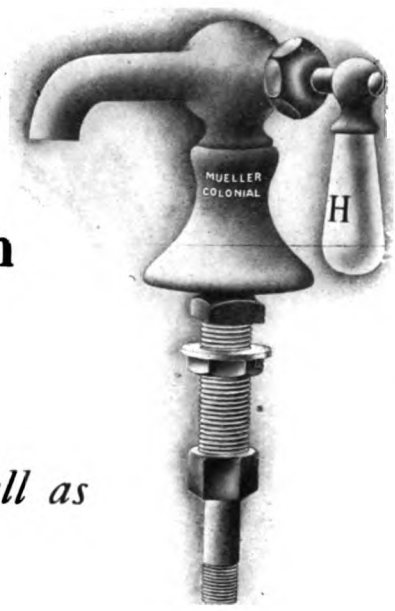
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MUELLER

Colonial Pattern Plumbing Brass Goods

Have artistic as well as mechanical points of superiority

D-10891 (Patent applied for)

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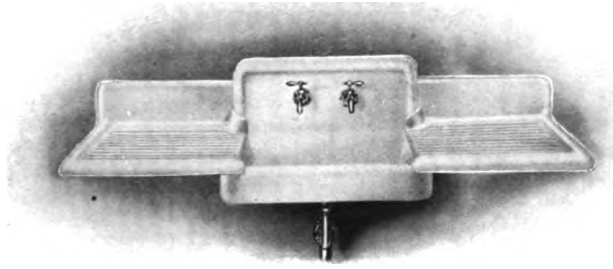


PLATE D-94 [Patent applied for]

One Piece Roll Rim and Apron Kitchen Sinks, etc.

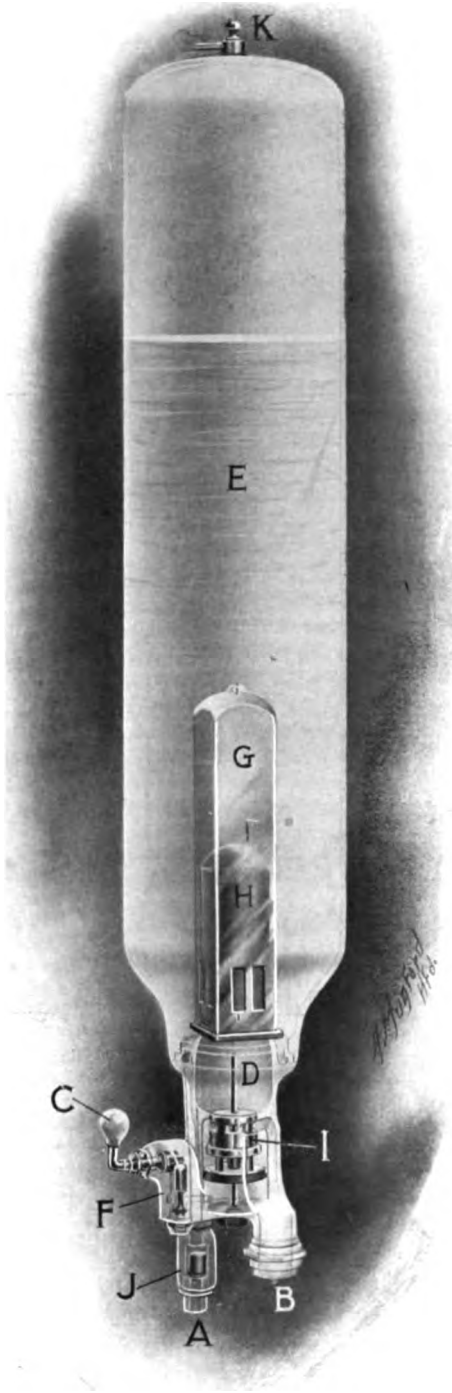
OUR new "Chattanooga" sink combination with right and left drain boards. Nothing similar made by any other manufacturer. Sink, back and apron cast integral; drain board and 8-inch back cast integral. Sink and drain boards supported by concealed wall hangers. We also make this sink with corner piece cast integral for either right or left corner; made in several sizes, and can be furnished with one or two drain boards. Lists and full description given in our catalogue "D," copy of which we will be glad to furnish on application.

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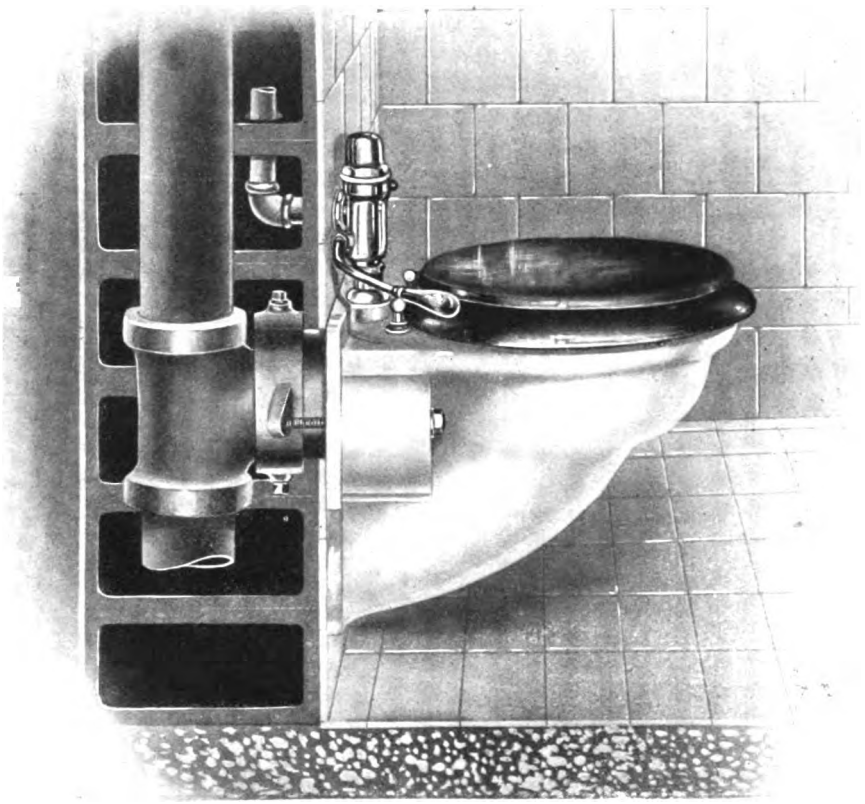
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See SWEET'S INDEX, pages 620, 621

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See Sweet's Index, 1907-08 edition, pages 108 and 110.

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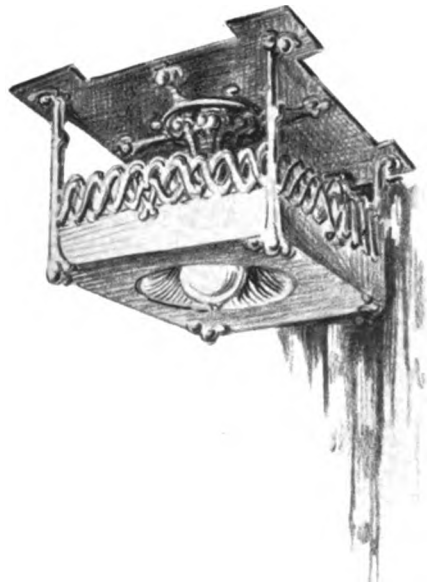
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AMERICAN Radiators

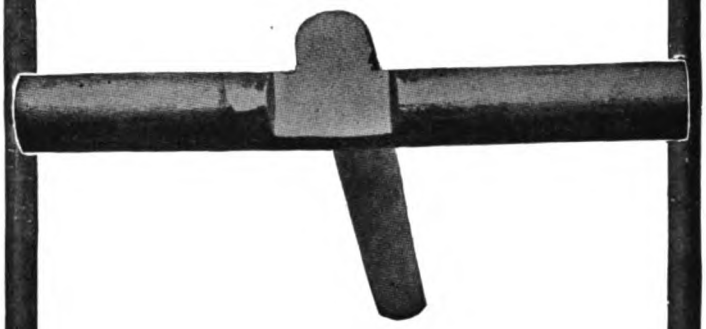
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of
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Fireproofing

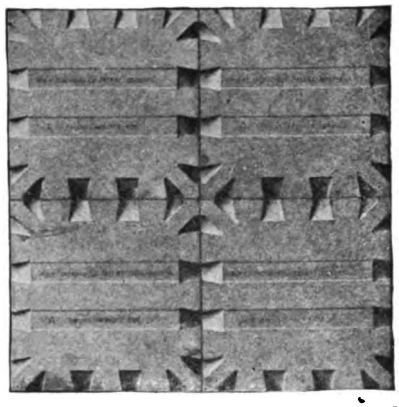
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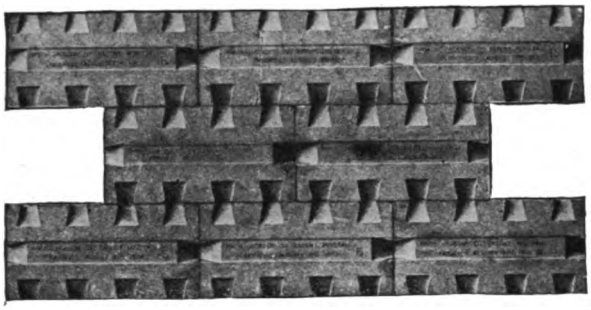
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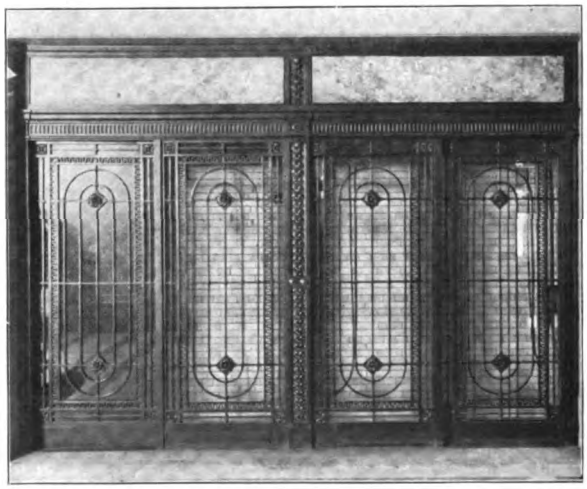
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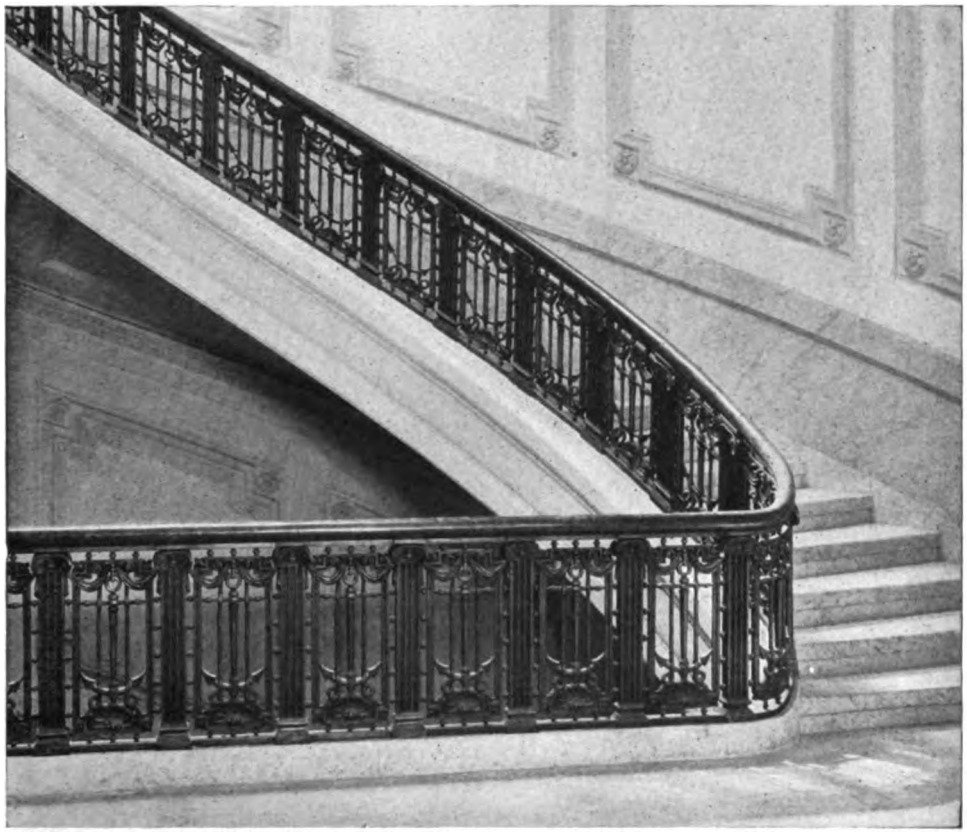
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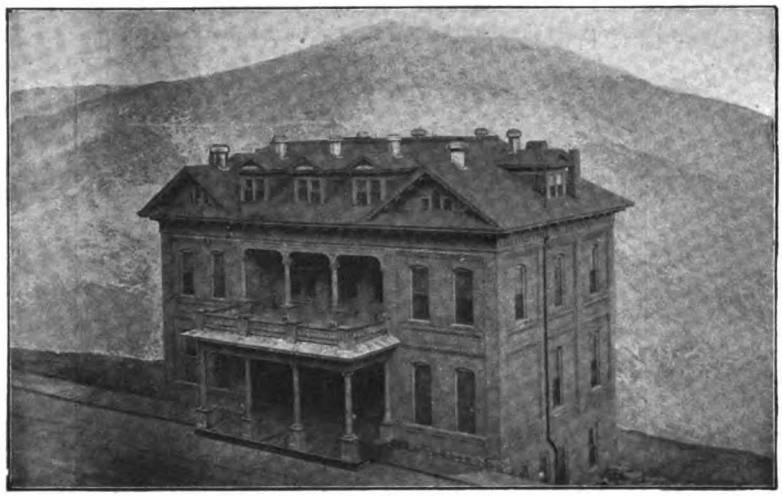
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Ventilation in the Desert

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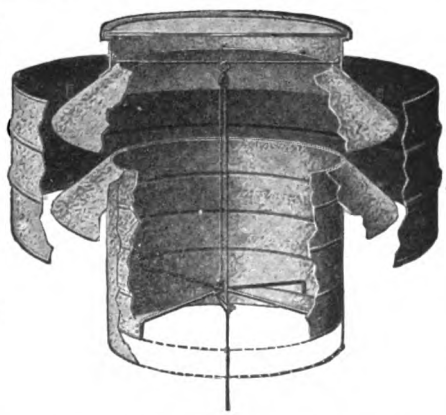
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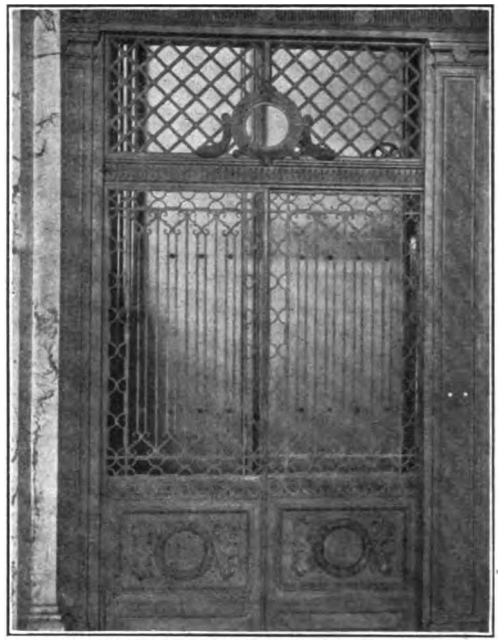
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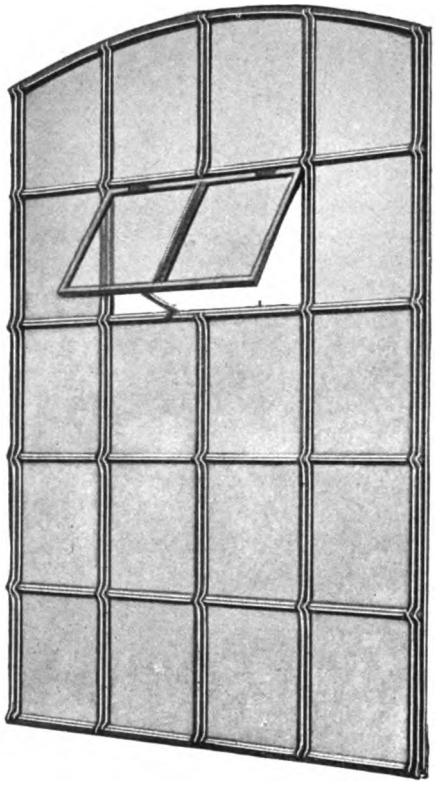
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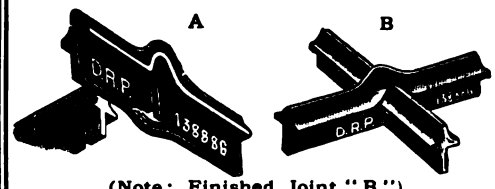
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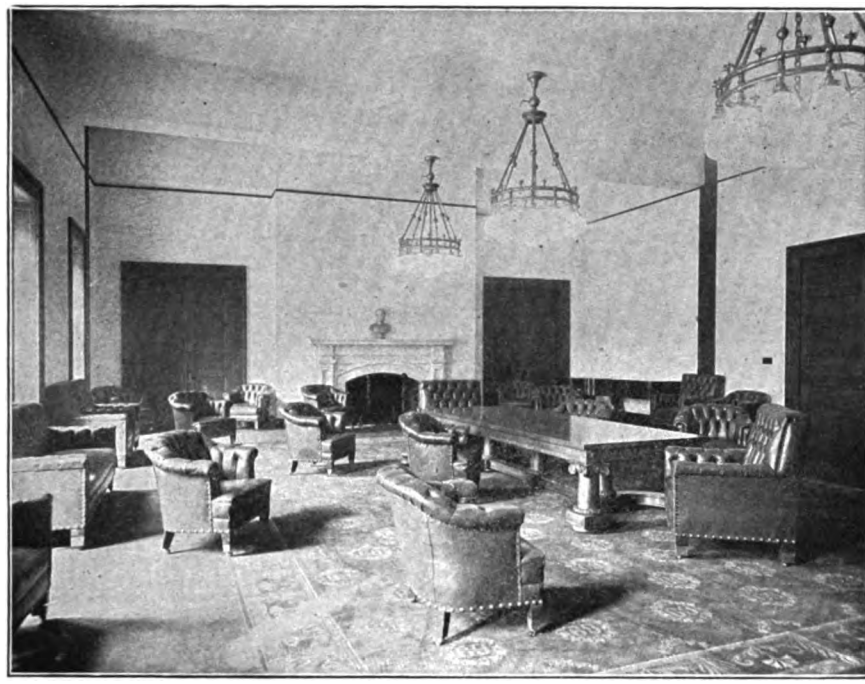
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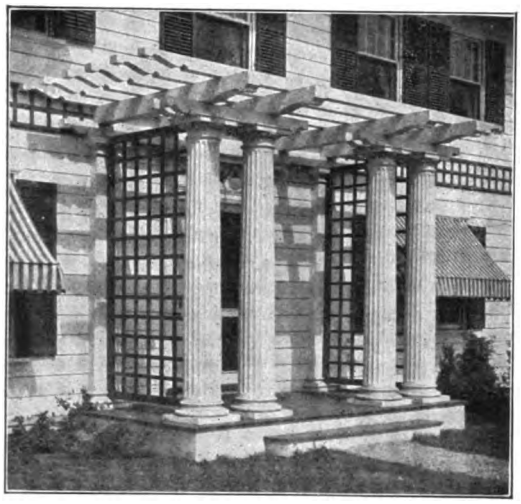
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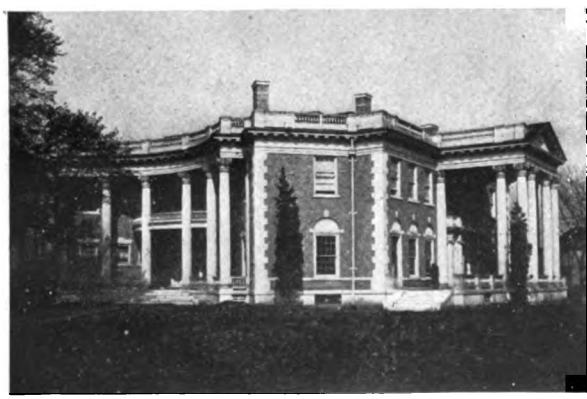
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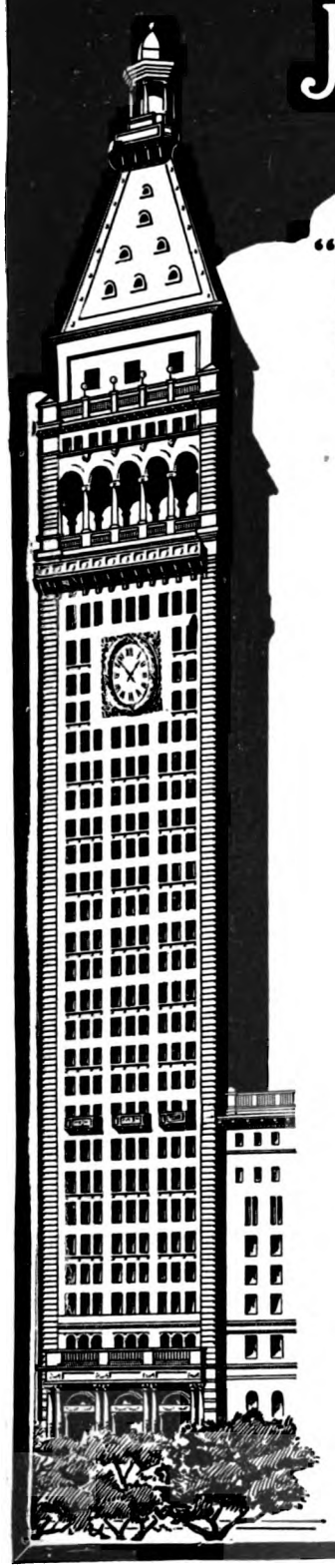
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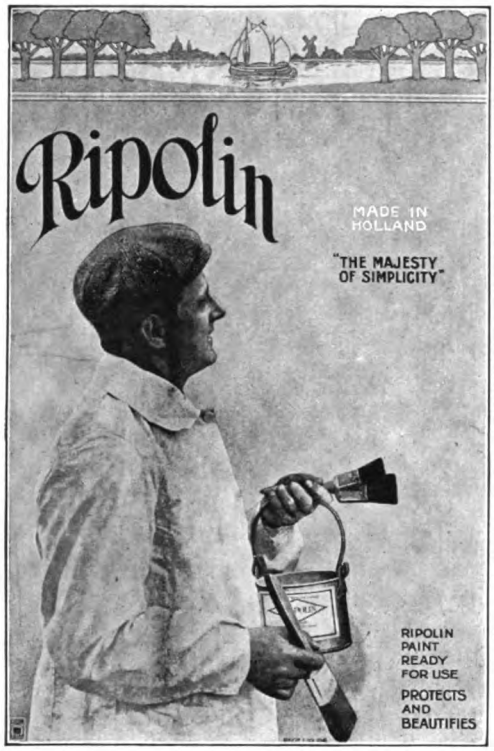
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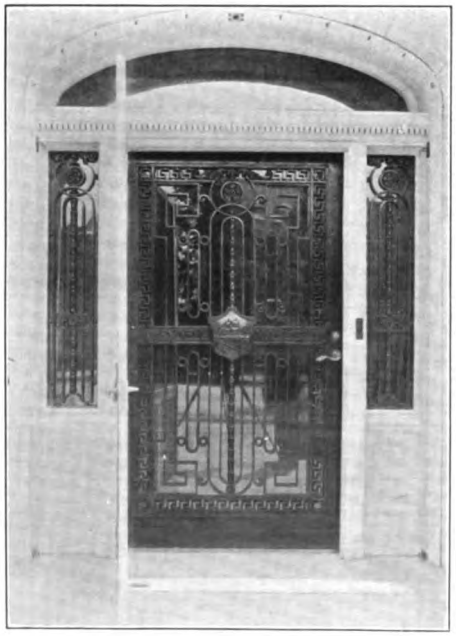
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American Luxfer Prism Co., Chicago; N. Y. Office, 507-509 W. Broadway; Boston, Mass.
Detroit Steel Products Co., Detroit, Mich.
Thomas Lee, Cincinnati, Ohio.
W. H. Mullins Co., Salem, Ohio.
John W. Rapp, 1 Madison Ave., N. Y. C.
Voigtmann & Co., Chicago and New York.

Fireproofing.
Clinton Wire Cloth Co., Chicago; San Francisco, Cal.; Clinton, Mass.; N. Y. Offices, 88 Park Pl. and 150 Nassau St.
General Fireproofing Co., Youngstown, O.
Hecla Iron Works, N. 11th and Berry Sts., Brooklyn, N. Y.
O. W. Ketcham, 24 South 7th St., Philadelphia.
National Fireproofing Co., Commercial Nat'l Bank Bldg., Chicago, Ill.
Roebling Construction Co., Fuller Bldg., N.Y.C.
Thorp Fireproof Door Co., Minneapolis, Minn.
Trussed Concrete Steel Co., Detroit, Mich.
White Fireproof Construction Co., 1 Madison Ave., N. Y. C.

Floor and Wood-Work Polish.
Butcher Polish Co., 356 Atlantic Ave., Boston, Mass.

Furnaces and Ranges.
Richardson & Boynton Co., Boston, New York, Chicago.
Thatcher Furnace Co., 110 Reekman St., N.Y.C.

Furniture.
The Ford & Johnson Co., Chicago, Ill.
S. Karpen & Bros., 187 Michigan Ave., Chicago 155 W. 34th St., N. Y. C.

Fuses.
Chicago Fuse Wire & Mfg. Co., Chicago and New York.

Garden Furniture.
Erkins Studios, 4 West 15th St., N. Y. C.
Leland Co., 557 5th Ave., N. Y. C.

Gas and Electric Fixtures.
Cleveland Gas & Electric Fixture Co., Conneaut, Ohio.
I. P. Frink, 551 Pearl St., N. Y. C.

Glass-Clasps for all Glass Store Fronts and Show Cases.
National Store Front Co., Pittsburg, Pa.; 1123 Broadway, N. Y. C.

Glass Doors and Partitions.
Pressed Prism Plate Glass Co., Morgantown, W. Va.

Granite.
Leland Co., 557 5th Ave., N. Y. C.
F. H. Schilling, 412 Perry Bldg., Phila., Pa.

Greenhouses.
A. T. Stearns Lumber Co., Neponset, Boston, Mass.

Grilles (Wood).
Decorators' Supply Co., Archer Ave. & Leo St., Chicago; 123 Fourth Ave., N. Y. C.

Gutters (Wood).
A. T. Stearns Lumber Co., Neponset, Boston, Mass.

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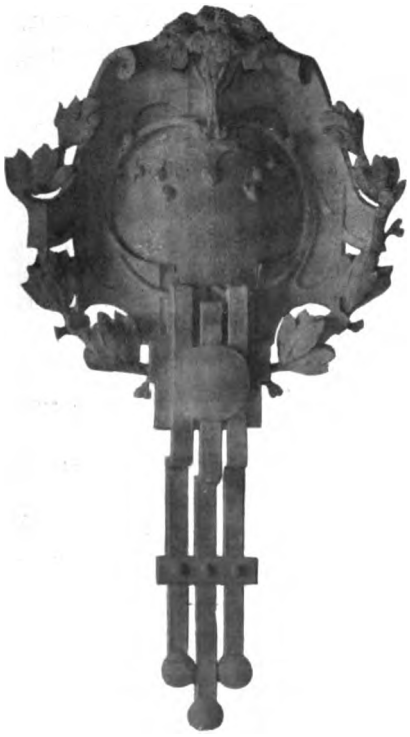
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Wood-Mosaic Flooring Co., Rochester, N. Y.

Heat Regulation.
Powers Regulator Co., 40 Dearborn St., Chicago; 111 Fifth Ave., N. Y. C.

Heating Apparatus.
American Radiator Co., Chicago.
Gorton & Lidgerwod Co., 96 Liberty St., N.Y.C.
Honeywell Heating Spec. Co., Wabash, Ind.
Pierce, Butler & Pierce Mfg. Co., Syracuse, New York, Boston and Philadelphia.
Thatcher Furnace Co., 110 Beekman St., N. Y. C.
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Richardson Engineering Co., Hartford, Conn.

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Duffner & Kimberly Co., 11 West 32d St., N. Y. C.
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Rockland-Rockport Lime Co., Rockland, Me.; Fuller Bldg., N. Y. C.

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Bedford Quarries Co., Chicago, Ill.

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Mail Chutes.
Cutler Mfg. Co., Cutler Bldgs., Rochester, N. Y.

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Edwin A. Jackson & Bro., 49 Beekman St., N. Y. C.
W. H. Jackson Co., 29 E. 17th St., N. Y. C.; Foundry and Shops, 229-239 W. 28th St.

Marble.
Bowker, Torrey Co., 118 Portland, cor. Chardon and Bowker Sts., Boston, Mass.
S. Klaber & Co., 126 W. 34th St., N. Y. C.
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The Henry A. Schweyer Co., Easton, Pa.
Tompkins-Kiel Marble Co., Astoria, L. I.

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A STATEMENT

IN answer to numerous questions, we take this opportunity to state just what our interest is in "The Barrett Specification."

For many years we have manufactured a very large proportion of the coal tar, pitch and felt used in constructing what are known as "gravel" or "slag" roofs, and where these materials have been *properly applied* in sufficient quantity the result has been a roof covering absolutely unequaled.

There are numerous buildings all over the country which carry gravel roofs which have been in use from 15 to 20 years and are still in serviceable condition.

The cost of these roofs in most cases is *less than ¼ of a cent* per square foot per year of service.

It is of vital importance to us, as the largest manufacturers of this class of roofing material, to have these results obtained wherever or by whomever gravel roofing is used.

The Barrett Specification covers explicitly the quality and quantity of materials to be used and best method of applying a standard Coal Tar, Pitch, Felt and Gravel, or Slag Roof.

Our effort is to have this Specification used wherever such roofing is applied. We know that a roof laid in accordance therewith will give better service than any other kind of roofing and at *lower cost*.

Booklet covering the subject and containing the Specification in full will be mailed free on request.

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Measuring Tapes.
Lufkin Rule Co., Saginaw, Mich.

Metal Corner.
W. F. Parker, 856 11th Ave., N. Y. C.

Metal-Covered Doors and Trim.
Thorp Fireproof Door Co., Minneapolis, Minn.
John W. Rapp, 1 Madison Ave., N. Y. C.

Metal Furniture.
General Fireproofing Co., Youngstown, O.

Metal Lath.
Garry Iron and Steel Co., Cleveland, Ohio.
General Fireproofing Co., Youngstown, Ohio.
White Fireproof Construction Co., 1 Madison Ave., N. Y. C.

Metal Roofing.
N. & G. Taylor Co., Philadelphia, Pa.

Metal Store Front Construction.
Detroit Show Case Co., Detroit, Mich.
National Store Front Co., Pittsburg, Pa.; 1123 Broadway, N. Y. C.

Mortar Colors.
Garry Iron and Steel Co., Cleveland, Ohio.

Mosaic Wood Floors.
Wood-Mosaic Flooring Co., Rochester, N. Y.

Motors (Electric).
Kohler Bros., 1804-12 Fisher Bldg., Chicago.
Northern Electrical Mfg. Co., Madison, Wis.

Nursery Stock.
Bobbink & Atkins, Rutherford, N. J.

Onyx.
S. Klaber & Co., 126 W. 34th St., N. Y. C.

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Cleveland Art Metal Co., Cleveland, O.
Lasar-Letzig Mfg. Co., St. Louis, Mo.
L. Schreiber & Sons Co., Cincinnati, O.
Winslow Bros. Co., Chicago; N. Y. Office, 160 5th Ave.

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Decorators' Supply Co., Archer Ave. & Leo St., Chicago; 123 Fourth Ave., N. Y. C.

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Carter White Lead Co., Chicago, Ill.
M. Ewing Fox & Co., 136th St. and Rider Ave., N. Y. C.; 53-55 E. Lake St., Chicago.
Lowe Bros. Co., Dayton, Ohio.
National Lead Co., 100 William St., N. Y. C.
Rinald Bros., 1142 N. Hancock St., Philadelphia.

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Wood-Mosaic Flooring Co., Rochester, N. Y.

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Barrett Mfg. Co., 17 Battery Pl., N. Y. C.

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Corrugated Concrete Pile Co., 1170 B'way, N.Y.C.
Raymond Concrete Pile Co., 135 Adams St., Chicago.

Plaster.
C. Volney King, 517 West St., N. Y. C

Plumbing Fixtures.
American Porcelain Co., New Brighton, Pa.
Cahill Iron Works, Chattanooga, Tenn.
Federal Company, 54 N. Halsted St., Chicago; 1123 Broadway, N. Y. C.
Glauber Brass Mfg. Co., Cleveland, O.
H. Mueller Mfg. Co., Decatur, Ill.
Sanitary Co., Cleveland, O.
Speakman Supply & Pipe Co., Riverview Works, Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburg, Pa.
Staples Valve Co., Newburgh, N. Y.
John Trageser Steam Copper Works, 447 W. 26th St., N. Y. C.
Trenton Potteries Co., Trenton, N. J.
L. Wolff Mfg. Co., Chicago.

Pneumatic Water Supply.
Kewanee Water Supply Co., Kewanee, Ill.

Polish (Floor).
Butcher Polish Co., 356 Atlantic Ave., Boston, Mass.

Porcelain Enameled Baths.
Cahill Iron Works, Chattanooga, Tenn.
Standard Sanitary Mfg. Co., Pittsburg, Pa.
L. Wolff Mfg. Co., Chicago.

Porcelain Enamel Paint.
Rinald Bros., 1142-1146 N. Hancock St., Philadelphia, Pa.

Porcelite Enamel Paint.
Thomson Wood Finishing Co., Philadelphia.

Post Caps.
Hercules Steel & Iron Co., Cleveland, Ohio.

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American Luxfer Prism Co., Heyworth Bldg., Chicago; 507-509 West Broadway, N. Y. C.
Pressed Prism Plate Glass Co., Morgantown, W. Va.

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American Well Works, Aurora, Ill.
Leader Iron Works, Decatur, Ill.; 27 William St., New York City.
Yeomans Bros., Monadnock Bldg., Chicago, Ill.

Radiators.
American Radiator Co., Chicago.
Pierce, Butler & Pierce Mfg. Co., Syracuse, N. Y.
Pressed Radiator Co., 41 E. 21st St., N. Y. C.
United States Heater Co., Detroit, Mich.
United States Radiator Co., Dunkirk, N. Y.

Ranges.
Duparquet, Huot & Moneuse Co., New York; Washington, D. C.; Boston.

Red Lead.
National Lead Co., 100 William St., N. Y. C.

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McCray Refrigerator Co., Kendallville, Ind.
White Enamel Refrigerator Co., St. Paul, Minn.

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Dodge Co., F. W.

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Van Kannel Revolving Door Co., 290 East 134th St., N. Y. C.

Roofing.
Barrett Mfg. Co., 17 Battery Pl., N. Y. C.

Roofing (Asbestos).
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Roofing Tiles.
Holland Delft & Spec. Co., 90 Warren St., N. Y. C.
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Rugs.
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Rules.
Lufkin Rule Co., Saginaw, Mich.

Safes.
York Safe & Lock Co., 55 Maiden Lane, N.Y.C.

Sanitary Plumbing Appliances.
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Cahill Iron Works, Chattanooga, Tenn.
Federal Company, 54 N. Halsted St., Chicago; 1123 Broadway, N. Y. C.
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H. Mueller Mfg. Co., Decatur, Ill.
Never-Split Seat Co., Evansville, Ind.
Pierce, Butler & Pierce Mfg. Co., Syracuse, New York, Boston and Philadelphia.
Sanitary Co., Cleveland, O.
Speakman Supply & Pipe Co., Riverview Works, Wilmington, Del.
Standard Sanitary Mfg. Co., Pittsburg, Pa.
Staples Valve Co., Newburgh, N. Y.
John Trageser Steam Copper Works, 447 W. 26th St., N. Y. C.
Trenton Potteries Co., Trenton, N. J.
L. Wolff Mfg. Co., Chicago, Ill.

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Sash.
Morgan Co., Oshkosh, Wis.

Sash Chain.
Bridgeport Chain Co., Bridgeport, Conn.
Smith & Egge Mfg. Co., Bridgeport, Conn.

Sash Cord.
Samson Cordage Works, Boston, Mass.
Silver Lake Co., Boston, Mass.

Sewage Disposal.
Stoddard Garbage Burner Co., 52 Dearborn St., Chicago, Ill.
Yeomans Bros., Chicago, Ill.

Sheathing (Asbestos).
Keasbey & Mattison Co., Ambler, Pa.

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Sheet Metal Work.
Burt Mfg. Co., Akron, Ohio.
Twinco Stamping Works, Rome, N. Y.

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Merritt & Co., 1007 Ridge Ave., Philadelphia.

Shingle Stains.
Samuel Cabot, 141 Milk St., Boston, Mass.
Parker, Preston & Co., Norwich, Conn.

Skylight Glass.
Pressed Prism Plate Glass Co., Morgantown, W. Va.

Skylights.
Burt Mfg. Co., Akron, Ohio.

Snow Guards.
Folsom Snow Guard Co., Boston, Mass.

Sound Deadeners.
Samuel Cabot, 141 Milk St., Boston, Mass.
Union Fibre Co., Winona, Minn.

Stained and Leaded Glass.
Church Glass & Decorating Co., 28 West 30th St., N. Y. C.

Stainless Port. Cement (Pure White).
Sandusky Portland Cement Co., Sandusky, O.

Steam and Hot-Water Heating.
Pierce, Butler & Pierce Mfg. Co., Syracuse, New York, Boston and Philadelphia.
Thatcher Furnace Co., 110 Beekman St., N.Y.C.

Steam Engines.
Ridgway Dynamo & Engine Co., Ridgway, Pa.

Steel Cabinets.
Art Metal Construction Co., Jamestown, N. Y.

Steel Concrete Construction.
General Fireproofing Co., Youngstown, O.

Steel Rolling Doors and Shutters.
Kinnear Mfg. Co., Columbus, O.

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American Bridge Co., Hudson Terminal, 30 Church St., N. Y. C.; Frick Bldg., Pittsburg, Pa.; Monadnock Block, Chicago; Third Nat'l Bank Bldg., St. Louis; 141 Milk St., Boston.

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Chicago Fuse Wire & Mfg. Co., Chicago and New York.

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Powers Regulator Co., 111 5th Ave., N. Y. C.; 40 Dearborn St., Chicago.

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Northwestern Terra Cotta Co., 1000 Clybourn Ave., Chicago, Ill.

Theatre Lighting.
I. P. Frink, 551 Pearl St., N. Y. C.

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Holland Delft & Spec. Co., 90 Warren St., N. Y. C.

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National Vacuum Cleaning Co., Dayton, O.
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Honeywell Heating Spec. Co., Wabash, Ind.
Jenkins Bros., New York, Boston, Philadelphia, Chicago and London.

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York Safe & Lock Co., 55 Maiden Lane, N.Y.C.

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American Luxfer Prism Co., Chicago; 507-509 West Broadway, New York City.

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Ventilators.
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Wall and Ceiling Finishes.
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Waterproof Compound.
Sandusky Portland Cement Co., Sandusky, O.
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Kewanee Water Supply Co., Kewanee, Ill
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Butcher Polish Co., 356 Atlantic Ave., Boston, Mass.

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Carter White Lead Co., Chicago, Ill.
National Lead Co., 100 William St., N. Y. C.

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Detroit Show Case Co., 477 West Fort St., Detroit, Mich.
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National Store Front Co., Pittsburg, Pa.; 1123 Broadway, N. Y. C.

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Detroit Steel Products Co., Detroit, Mich.

Window Screens.
Higgin Mfg. Co., Newport, Ky.

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Church Glass & Decorating Co., 28 West 30th St., N. Y. C.

Windows (Prism).
American Luxfer Prism Co., 507-509 West Broadway, N. Y. C.; Chicago, Ill.

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Clinton Wire Cloth Co.; N. Y. Offices, 38 Park Pl., 150 Nassau St.; Boston; Chicago; San Francisco; Clinton, Mass.

Wiring (Electric).
Kohler Bros., 1804-12 Fisher Bldg., Chicago.
Northern Electrical Mfg. Co., Madison, Wis.

Wood Filler.
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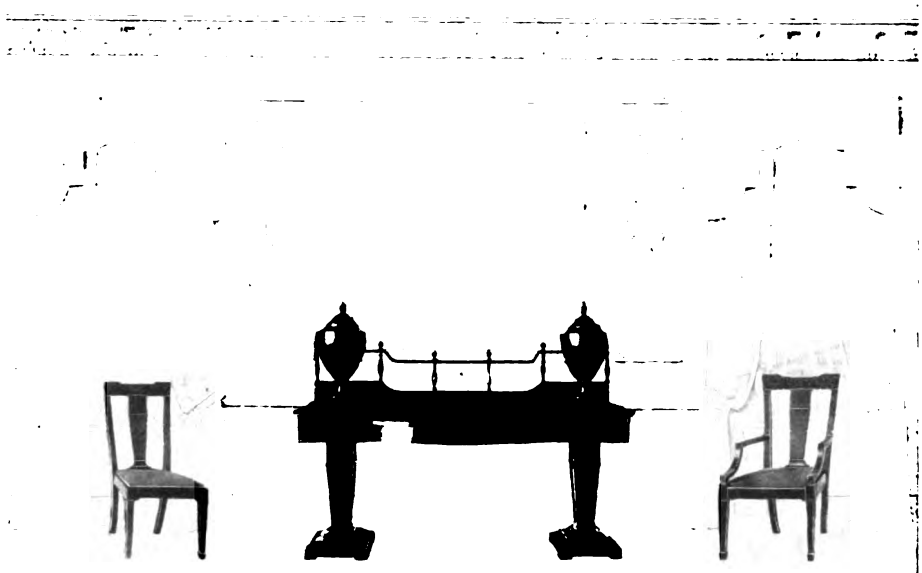
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should extend to and be carried out in the *furniture* of a home, if real artistic unity is to result.

The architect's genius, in any given case, precedes that of the furnisher and cabinet-maker, and should, therefore, be regarded as essentially the keynote of the completed structure.

COWAN CABINET WORK

is structurally so good and its lines are so pure and dignified that any piece of furniture by Cowan may safely be bought almost at random by the layman.

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can reach its best fruition only where the decorator is able to seize intelligently the architect's subtler purposes — and is willing to adapt his skill to them.

That he may sense the meanings of a great exterior he must himself be of very wide knowledge and experience.

That he may regard it as his privilege to *develop* a fine theme already born, instead of inconsiderately *initiating another* (and perhaps discordant) theme, he must be of serious purpose and genuine artistic appreciation. It is the province of

THE COWAN GALLERIES

and period rooms to serve as citations by architects to clients, and it is the best conception of our decorative service that it should collaborate *in a true sense* with the architect — even though collaboration be given the name of subordination.

In the results of this attitude we find ample proof of its fundamental correctness.

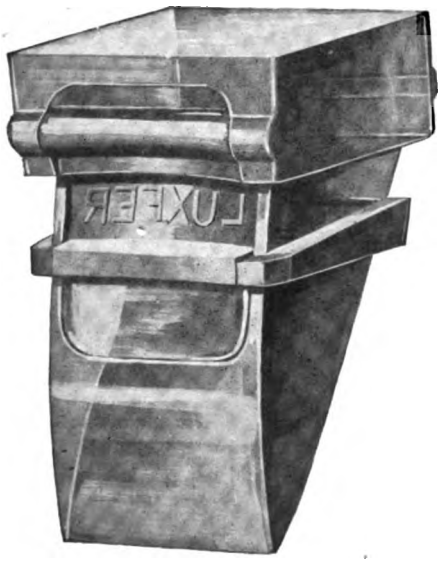
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THE three absolute essentials in any building which the architect ***has got*** to provide for are LIGHT, HEAT and AIR. These three human necessities are of equal importance, and the success of the building rests equally upon them.

Modern practice has evolved carefully studied ventilating apparatus for the distribution of the right kind of air, pipes of one sort or another for placing the heating medium exactly where it is needed, and LUXFER PRISMS for delivering actual daylight to the innermost recesses of the building.

The average architect or owner would on no account overlook the value of just the right apparatus for the proper provision of **Heat** and **Air,** but will frequently subject the tenants in some portions of the building to the use of artificial makeshifts such as gas or the electric light, when real daylight is at his command by the simple and economical adoption of LUXFER PRISMS.

LUXFER PRISMS constitute the only scientific harnessing of real daylight.

Let us send you our book entitled **"Daylighting."** It will show you why we are not simply glass merchants, and why Daylighting Engineering is a professional service.

American Luxfer Prism Co.

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CLEVELAND, 1022 Garfield Building
CINCINNATI, 31 Thoms Building
DULUTH, 106 West Michigan Street
INDIANAPOLIS, 342 E. Washington St.
KANSAS CITY, 948 New York Life Building
LOS ANGELES, 232 Bradbury Building
MILWAUKEE, 1112 Railway Exchange
NEW YORK, 507 West Broadway
NEW ORLEANS, 904 Hennen Building
PITTSBURG, 1022 Fulton Building
PHILADELPHIA, 608 Chestnut Street
ROCHESTER, 38 Exchange Street
ST. LOUIS, 1002 Carleton Building
ST. PAUL, 615 Ryan Building
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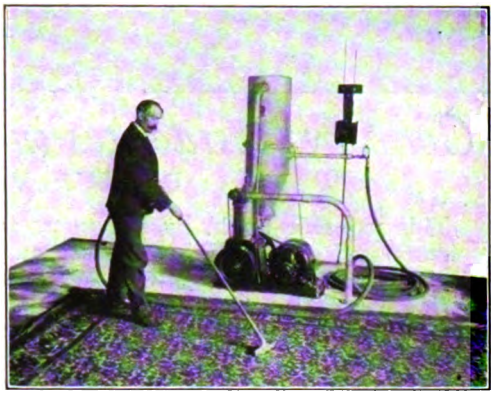
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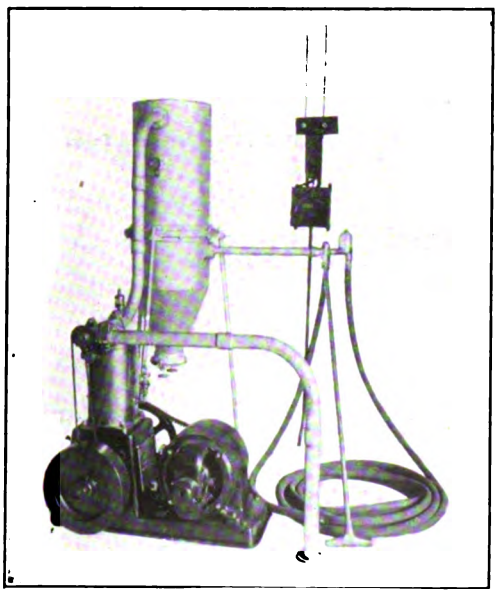
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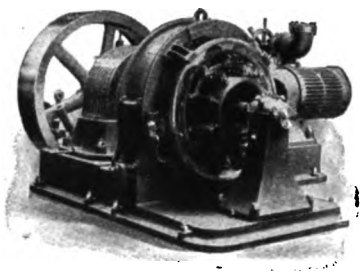
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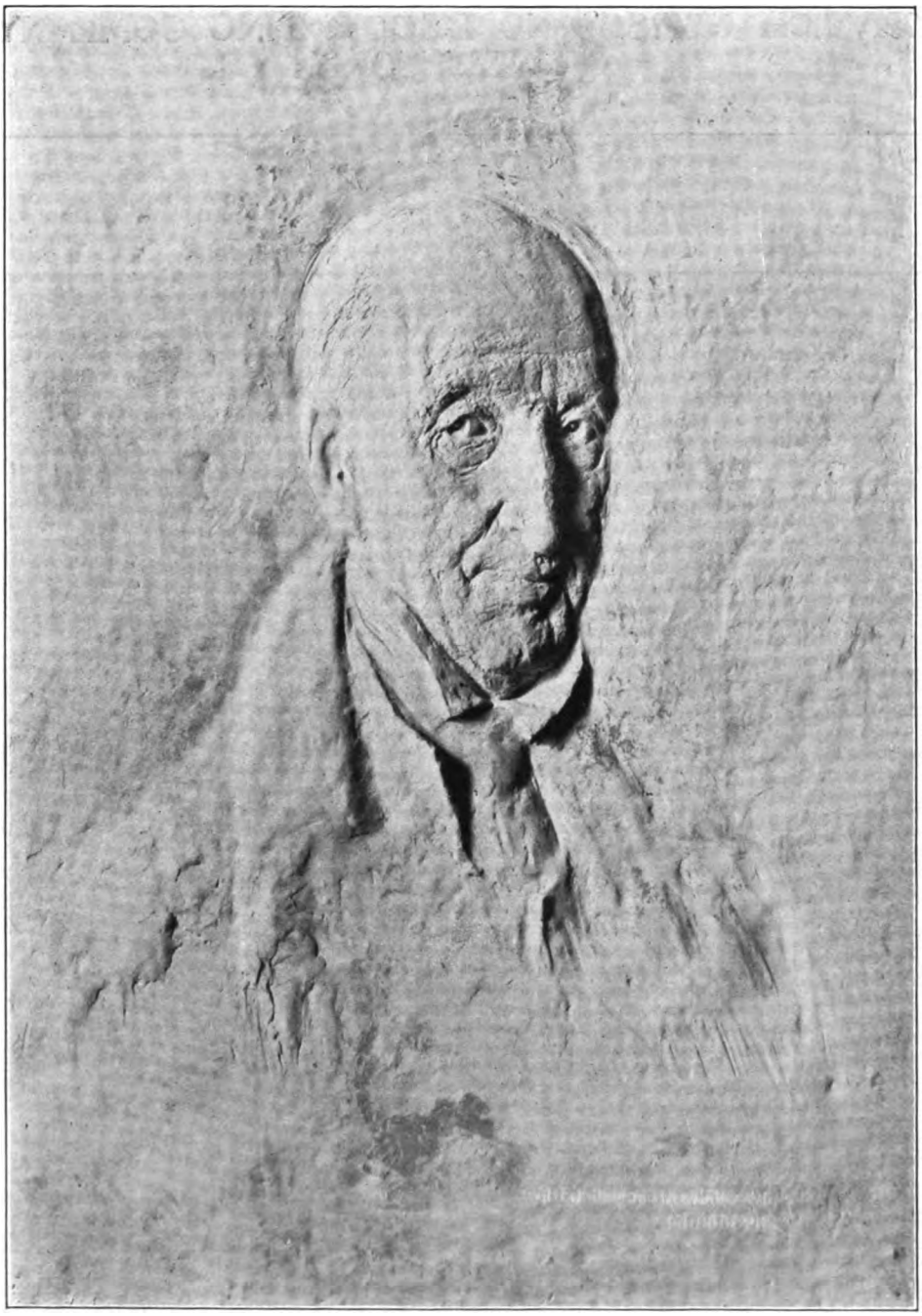
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The Franco-British Exhibition

The fascination of exhibitions on a large scale has been strangely slow in seizing upon London. It is true that the English metropolis set the fashion as far back as 1851, but that, so far as the buildings were concerned, was merely utilitarian—a matter of steel and glass, almost repulsivelv ugly, if we are to accept the water-color views of the Great Exhibition adorning the walls of the Victoria and Albert Museum at South Kensington. Paris, Chicago, St. Louis and, latterly, Milan, have taught us that there is a different sort of exhibition architecture; a style which is essentially suitable for the purpose, and which, even if measured by the highest standards of art, does not leave very much room for blame. In judging these buildings we have to remember that the problems of construction are practically annihilated by the material of which they are made; also, that this material—plaster—is more easy to bend to the will of the craftsman than almost any other. True, it is not a lasting structure that the exhibition architect makes out of a few tons of plaster and a little canvas; but then the scarlet butterflies and Dame Nature's garland of summer blooms are not less beautiful because they fade away so soon.

London, thanks to the creative genius of Mr. Imre Kiralfy, has at length entered into competition in the matter of great exhibitions. The Franco-British Exhibition, which recently opened its doors to the public, and more recently still was honored with a state visit from the King, in company with President Fallières, serves a higher purpose than that of mere commercial competition. It is the monument of the "Entente Cordiale," of which so much has been heard of late. Indeed, the "Entente" has become quite superlatively "cordiale" in the neighborhood of the exhibition grounds. French children sell French newspapers in the streets, English tea-shops have suddenly become "cafés," and no tradesman's window is complete without the mystic words, "Ici on parle Francais." At a time when the French exhibits were being sent in it was no unusual sight to see a French *douanier,* in blue uniform and voluminous cape—for the heavens poured forth the vials of their disapproval of the whole thing with unremitting persistency, turning the roads into rivers and the gardens into lakes—strolling down the road in close juxtaposition to an English police constable. Doubtless they would have engaged in conversation, with all the cordiality born of the *entente,* but it is difficult to communicate your ideas to a fellow man when the common vocabulary is limited almost entirely to "bon(g) jour" on the one side, and "vairy goot" on the other. Yet the spirit of *camaraderie* (the writer must be forgiven for whatever French words have crept into these notes, induced by

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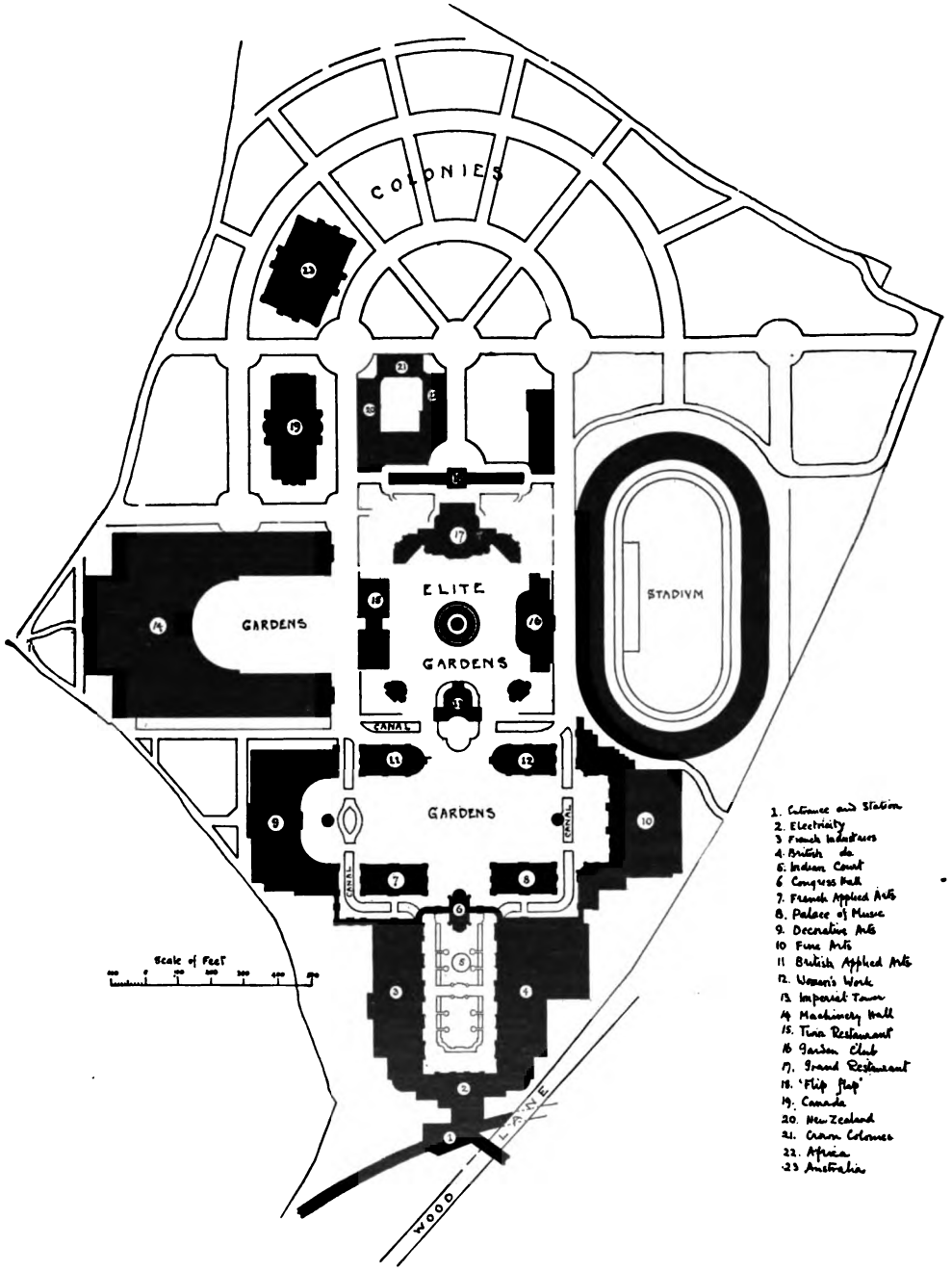


FIG. 1. GROUP PLAN—FRANCO-BRITISH EXHIBITION, LONDON, 1908.

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a momentary touch of Francophile enthusiasm) which has aided the promoters of the scheme has imbued even the workmen with a desire to be on good terms with their neighbors from across the Channel. The British bricklayer finds his range of expression enlarged by the addition of a few Continental swear-words, while his French compeer has learnt that the Briton likewise has language at his command on occasions of emergency. It is related as a fact that an English plasterer, having learnt that the French word for a torch was "flambeau" was overheard one dark night addressing a French *plàtrier* in this wise: "'Ere, you Froggy, 'urry along with that 'ere bloomin' *flamber!*"

Reflections of this kind, however, have little to do with the purpose in hand. The Franco-British Exhibition offers what may perhaps prove to be a unique opportunity of comparing the last phase of English architectural design with the last phase as it has presented itself in France, due allowance being made for the fact that exhibition architecture is, in its very essence, ephemeral and built only for the pleasure of a day.

Mr. Imre Kiralfy, whose name is already famous as a master in the art of dreaming beautiful dreams and then realizing them, has in this work had as collaborateur Mons. M. Toudoire, of Paris (architect-in-chief); Messieurs Coste, Duquesne, Levard, Martello, Crevel, Joulin, Lucet, Patrouillard and Thorimbert (French architects); John Belcher, Esq., A. R. A., Past President of the Royal Institute of British Architects (Honorary Consulting Architect); and Messrs. Lionel G. Detmar, A. R. I., B. A.; James B. Fulton, A. R. I. B. A.; and Charles Gascoigne. This galaxy of creators has been backed up by capital which seems to have been inexhaustible, so that there is every reason why the exhibition should prove to be what is claimed for it—the most beautiful that the world has ever seen.

In point of size it falls behind several of its predecessors, but this matters little if the space provided be amply and suitably filled; and, too, in a city like London, where ground rentals rank high, it is not easy to find a site of sufficient size for the purpose which can be reached conveniently and quickly from every part of the metropolis. This primary difficulty was overcome, and an ideal site of 140 acres, with unlimited potentialities, was obtained at the Shepherd's Bush terminus of the Central London Railway, and in immediate connection with the whole system of underground railways which in the last few years have been driven in the mysterious depths of the London clay. On January 3, 1907, M. le Comte H. de Manneville, on behalf of the French ambassador, cut the first sod of the exhibition on a spot which at that time was half brickfield and half farm—a weary expanse of rubbish, mud and puddle, with unsightly mounds of earth which had been deposited there during the construction of the railway. Since that day a mighty transformation has taken place, brought about by the unremitting efforts of the Director of Works, Mr. Albert E. Kiralfy, and a truly colossal army of willing assistants. What Mr. Imre Kiralfy and his coadjutors at the head office in Victoria street schemed was loyally executed by his son in the tin shed which did duty for an office on "the grounds"; and though the last three weeks before the exhibition was opened by the Prince and Princess of Wales were almost entirely lost, owing to the heavy rains which made out-door work practically impossible, by the time these notes appear in print the whole of the fifty-odd gleaming white palaces, with the exception of the Imperial Tower, will be completely finished.

It is worthy of note, in passing, that the whole of the profits are to be devoted to the furtherance of some useful public purpose.

The general scheme and laying out of the grounds irresistibly suggests the hand of a French architect. Whichever way the visitor chooses to look he sees a carefully thought-out arrangement, both of buildings and gardens; while the waterway, catching the reflection of the pavilions by day and the illumina-

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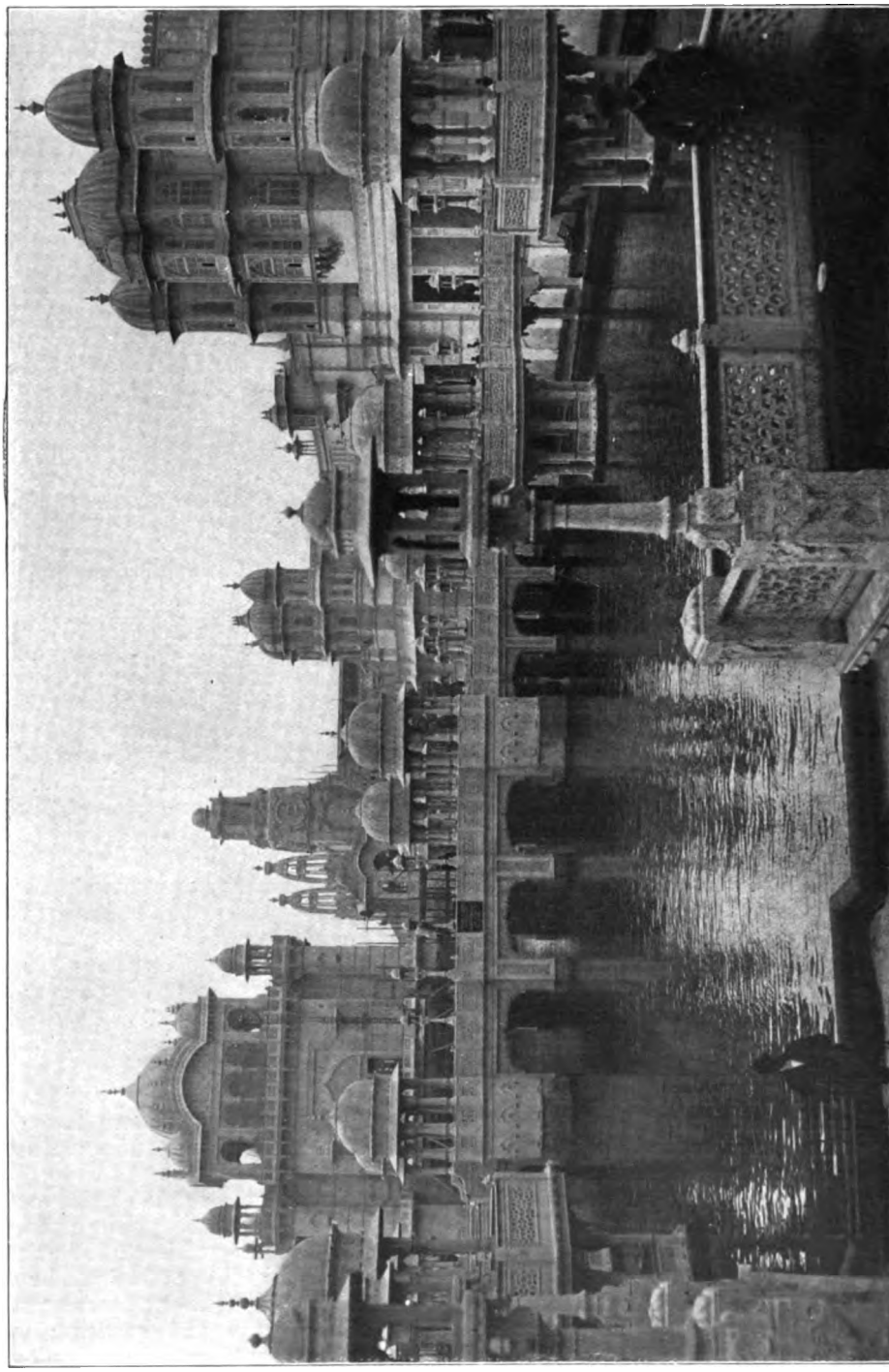


FIG. 2. THE INDIAN COURT—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

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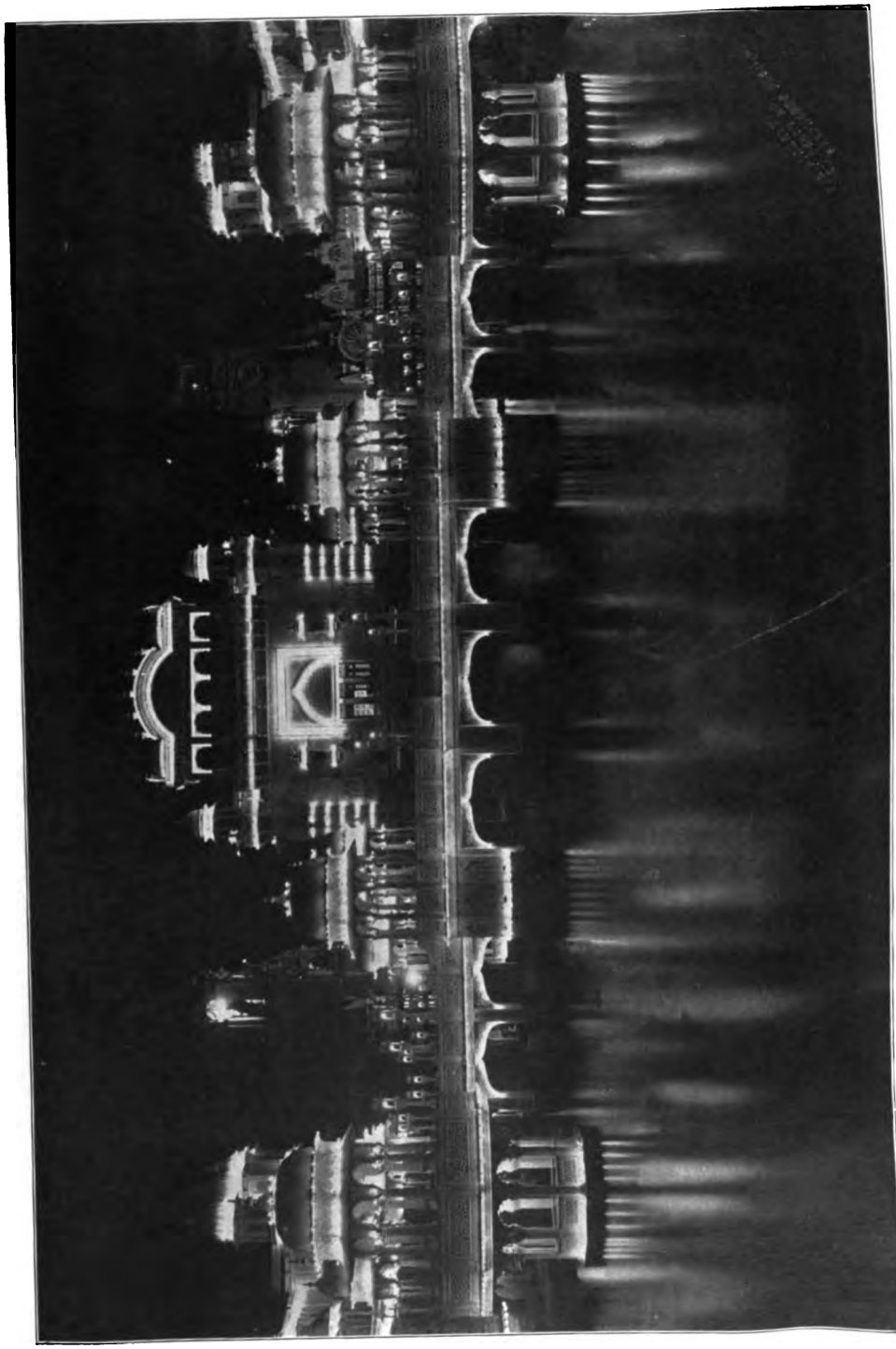


FIG. 3. THE INDIAN COURT BY NIGHT—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

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tions—those inseparable concomitants of exhibition architecture—by night, and throwing them back in a thousand distorted forms, adds not a little to the effect.

There are two entrances to the grounds—the one in Wood Lane, which is indicated on the accompanying plan, and another in Uxbridge Road, more than half a mile away, connected to the exhibition proper by a series of eight "overhead" buildings that stand astride of a maze of railway sidings and goods yards. The visitor, however, does not see these things; he traverses a seemingly endless succession of halls filled with French and English exhibits, and when he has given up all hopes of ever getting to the end he finds his path tending downwards into the heart of the exhibition. The architecture of these entrances does not raise the enthusiasm of the beholder.



FIG. 4. PALACE OF BRITISH APPLIED ARTS—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

The *Porte Monumentale* in the Uxbridge Road is too narrow, a result, doubtless, of the difficulty of obtaining

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enough width along the road frontage. The Wood Lane entrance falls short of what it might have been, owing, probably, to the fact that the architect was unconsciously influenced by a recollection of the great entrance to the Milan Exhibition of 1906. There are two arches of considerable span, with a tower rising over the central pier. We have grown so accustomed to the Roman arch-of-triumph form, that in which the central part is devoted to the arch itself, that to see, as it were, this arch split up into two portions in order to accommodate a tower in its midst is just a little startling. Novelty of this kind should, at least, have beauty to support it; but in this case the architectural embellishments resemble nothing so much as a collection of odd casts, left over from other buildings and worked in here according to the space to be filled.

A better conception of what is required greets us in the Indian Court, and it is not too much to say that this portion of the exhibition will live in the minds of those who have seen it as one of the most effective pieces of architectural planning in the whole range of exhibition work. Not that there is anything noteworthy in the detail; on the contrary, it is trite, mechanical and hard—the sort of detail that can be turned out by the mile, or at least until the gelatine moulds have lost their definition. It is in the plan that the secret lies.

The center of the Court is occupied by a sheet of water, some four hundred feet long by a hundred broad, crossed about the middle by a bridge which thus divides it into two unequal portions. In each half four octagonal pavilions rise out of the water in two stories, capped by a dome on slender columns. Four similar pavilions adorn the center of the bridge, while round them, and along the arabesque balustrading of the courtyard, there stand a host of lanterns, hid in fretted trellis-work niches of what we can easily imagine to be true Eastern form. At the further end of the court there is a cascade of water, falling from a height of some five and thirty feet, into the

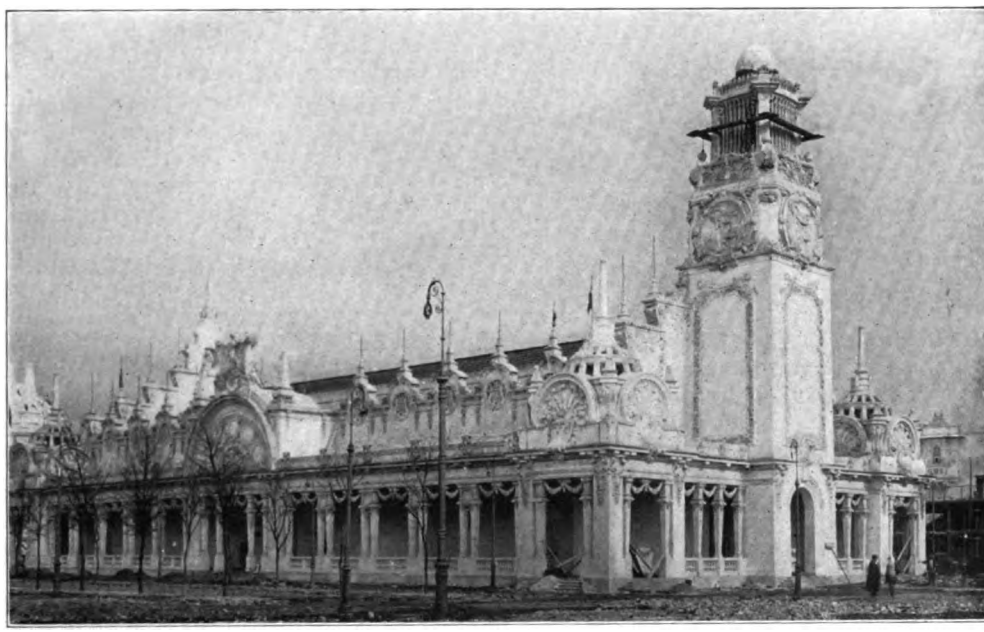


FIG. 5. PALACE OF MUSIC—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

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basin over a terraced semicircle of translucent green glass. Whether the Indian. Court be seen first by night or by day makes but little difference; it is always strikingly beautiful. By day it presents a vision of dazzling, almost blinding, whiteness, with its tile-paved court and splashing, cool waters, its domes and pinnacles, its pointed arcades and lattice windows, to which one instinctively looks for a glimpse of bright-eyed women peering down. At night, when the cascade is illuminated from underneath with ever-changing colors (at present they work rather spasmodically, but the operator will doubtless improve with practice), and the court is ablaze with countless lights, the effect is equally fine. It is a piece of work which, even in exhibition architecture, can have but few equals. In one point only should we wish to see it altered. We wish the central bridge, breaking the view and detracting from the full value of the lake, were not there. Instead of it, we should prefer to see two more of the domed octagonal pavilions.

Up to this point there has been no sign of competition, even of a friendly nature, between the several French and English architects. On emerging from the court, however, it becomes clear that a definite purpose has been carried out in allotting the various buildings to their designers. Broadly speaking, the next section is enclosed by eight pavilions, and should, we believe, be called the "Court of Honour," though the name seems to have been applied by some enthusiast to the Indian Court, and has stuck to it ever since. It is here that the opportunity is afforded us for studying the different moods in which the several architects have interpreted the term "Exhibition Architecture." The buildings standing around the court are the Congress Hall (closing the Indian Court), Palace of French Applied Arts, Palace of Decorative Arts, Palace of British Applied Arts, the Imperial Tower (which has not been finished, owing to the difficulties met with during the excavations), Palace of Women's Work, Palace of the Fine Arts and the Palace of Music. Of this group, the three lying on the left hand (left hand, that is, as you proceed up the court) are from designs by English architects, while the corresponding three on the right are by their French confrères. On the one hand we have a Past President of the Royal Institute of British Architects designing a palace to house the Decorative Arts, while far across the court lies the palace of Fine Arts designed by a prominent colleague from Paris. Each is supported by two of his fellow countrymen, and each of them tells us—in lath and plaster—what is his conception of "the exhibition manner." The Englishmen give us classicism which is afraid to wander very far from the beaten track of stone and mortar; the Frenchmen, seeming to laugh joyously at the freedom from all restraint which is implied by the very nature of the materials, unbind their fancies and leave them unrestricted by any recollection of the teachings of the Ecole. Let happen what will, this is to be an architectural holiday for them. "Let us keep our T-squares and straight edges for every-day work; what we require here is a free, steady hand and a bundle of French curves," they seem to say. Some of them have succeeded—tolerably; others of them have failed signally in their flight of architectural fancy.

Congress Hall calls for no comment; it is part and parcel of the Indian Court. The next three buildings, however, contain some of the best architecture in the exhibition, and it is fitting that the names of the architects should be recorded. The Palace of French Applied Arts was designed by Mr. Lionel Detmar, A. R. I. B. A., though the general lines which are followed in the design seem to have been dictated by the controlling architect, as they agree so completely in the matter of grouping with the form of the Hall of Music on the other side of the court. Mr. Detmar's building is a graceful structure, surrounded by a colonnade of coupled columns. The chief difference between this building and the same thing carried out in stone appears to lie in the num-

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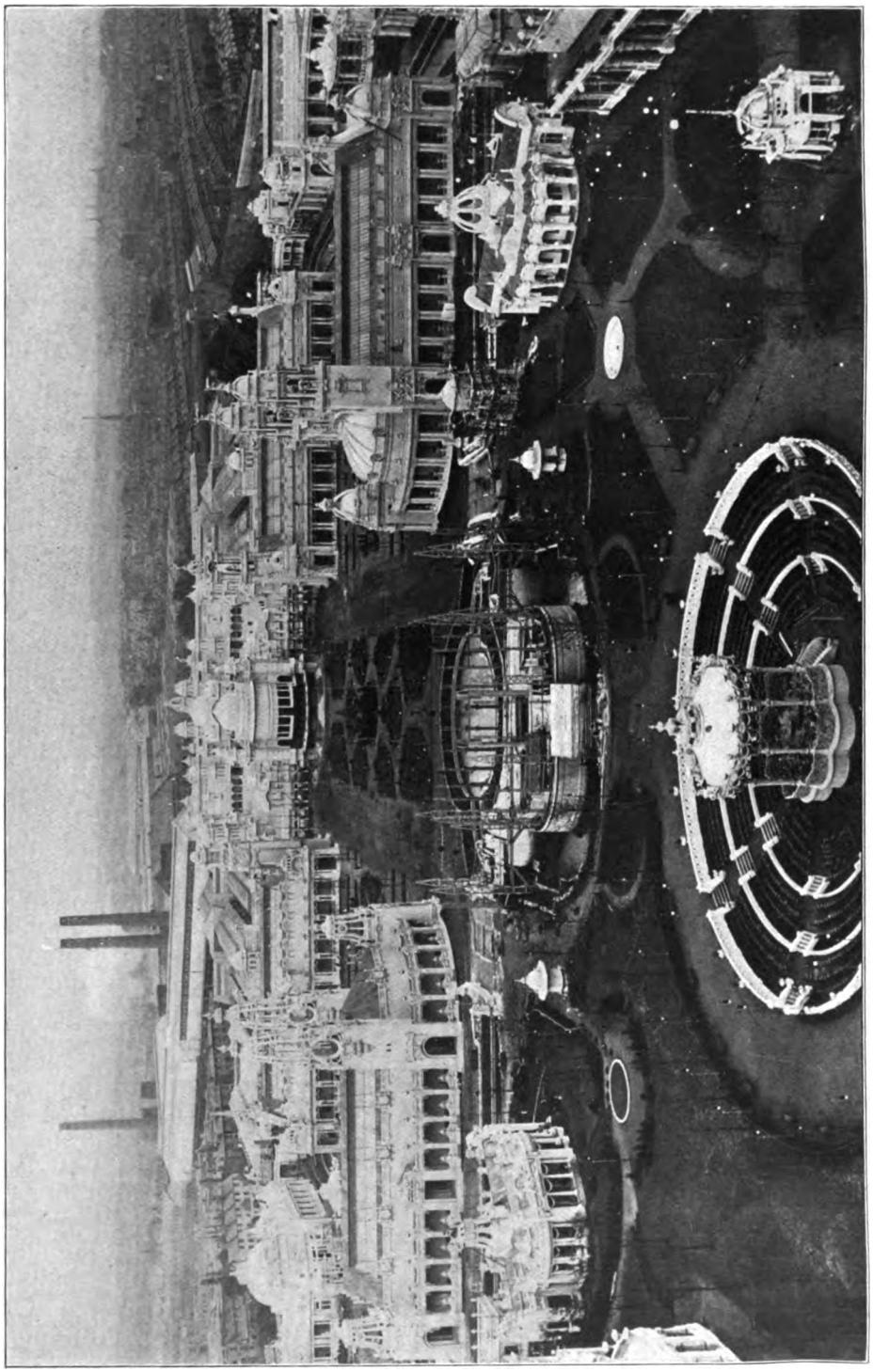


FIG. 6. BIRD'S-EYE VIEW FROM TOP OF "FLIP-FLAP."—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

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ber of "swags" and garlands. But if coupled columns must be decked with wreaths of plaster flowers it seems reasonable that they should accentuate the fact that the columns *are* coupled and add to the suggestion of strength which such a treatment is designed to emphasize. In this building the garlands connect the columns to the architrave in the center of each bay, and give the effect of dragging each shaft from the fellowship of its twin. This is the only point in which the design lies open to blame, however; the tower, with the great winged figure surmounting its cupola, being particularly satisfactory, both in form and detail.

The next building, the Palace of Decorative Arts, is from the designs of Mr. Jonh Belcher, A. R. A., and presents all the characteristics of his particularly "personal" style, totally undisturbed by the somewhat demoralizing influence of so gay a place as an exhibition. If it has a fault, it is in the all too sparing use of decoration, the unadorned arrises of the piers and arches in the curved colonnade appearing decidedly thin, after the wealth of decoration which everywhere else greets the eye. The lines of this colonnade, too, clash with the rectangular form of the building it is intended to mask, a blemish which is greatly to be deplored.

The Palace of British Applied Arts, the third of the English designs, is the work of Mr. J. B. Fulton, A. R. I. B. A., and is perhaps the most satisfactory of all the buildings in the exhibition. Here again it seems probable that the controlling spirit of the plan stepped in to say what the general form was to be, as the grouping is in every way similar to that of the corresponding structure across the court. The form of the two towers, connected by a light colonnade of square columns, the shell-like shape of the flat semidome, and the sweeping lines of the curving loggia, with its coupled Ionic columns, combine to make up an *ensemble* which is pleasing in the extreme. In Mr. Fulton's work we may perhaps see the full legitimate extent to which exhibition architecture may go. It is light, graceful, airy; it is something of a flight of fancy, yet it might be built in stone without any violation of the laws of construction, and all that the most crabbed critic could say would be that the whalebone-like flying buttresses supporting the bases on which the crowning figures stand obviously do no work.

On the other side of the gardens we may see how much further exhibition architecture is allowed to go in France. In the first place, French architecture of this sort seems to have no use for the simple column. Glorified table legs, either single or in couples, will do just as well; or failing that, a plain, four-square pillar, relieved by naturalistic foliage. The broad distinction between the two would appear to be that the French architects regard the whole field of *l'art nouveau* as being open to them for the purpose of exhibition work, while the Englishmen, with their national conservatism, are loath to go further than a free translation of classic tradition. It would be difficult, for example, to imagine a candidate for the Soane Medallion submitting a design to the Royal Institute of British Architects schemed on such lines as the building now housing the exhibit of Women's Work. It has to pair with the Palace of British Applied Arts, and, consequently, has two towers and a semi-circular projecting front. But what a difference in the treatment of the two! The towers stop half-way up; then eight gaunt ribs shoot into the air on either side, thin, startling, senseless, without even beauty to recommend them. The same may be said of the skeleton cupolas crowning the other corners of this building.

The Palace of Fine Arts faces that of the Decorative Arts, but does not in any way conform to it, either in design or plan. It is a huge mass of building, which has little to recommend it bevond its size; to sit in front of it and attempt to criticise it is to find that it baffles description. It has a flat recessed front, with a heavy dome on top; then it has two projecting wings, forming a court, on the top of which there are two more heavy domes. These heavy domes are

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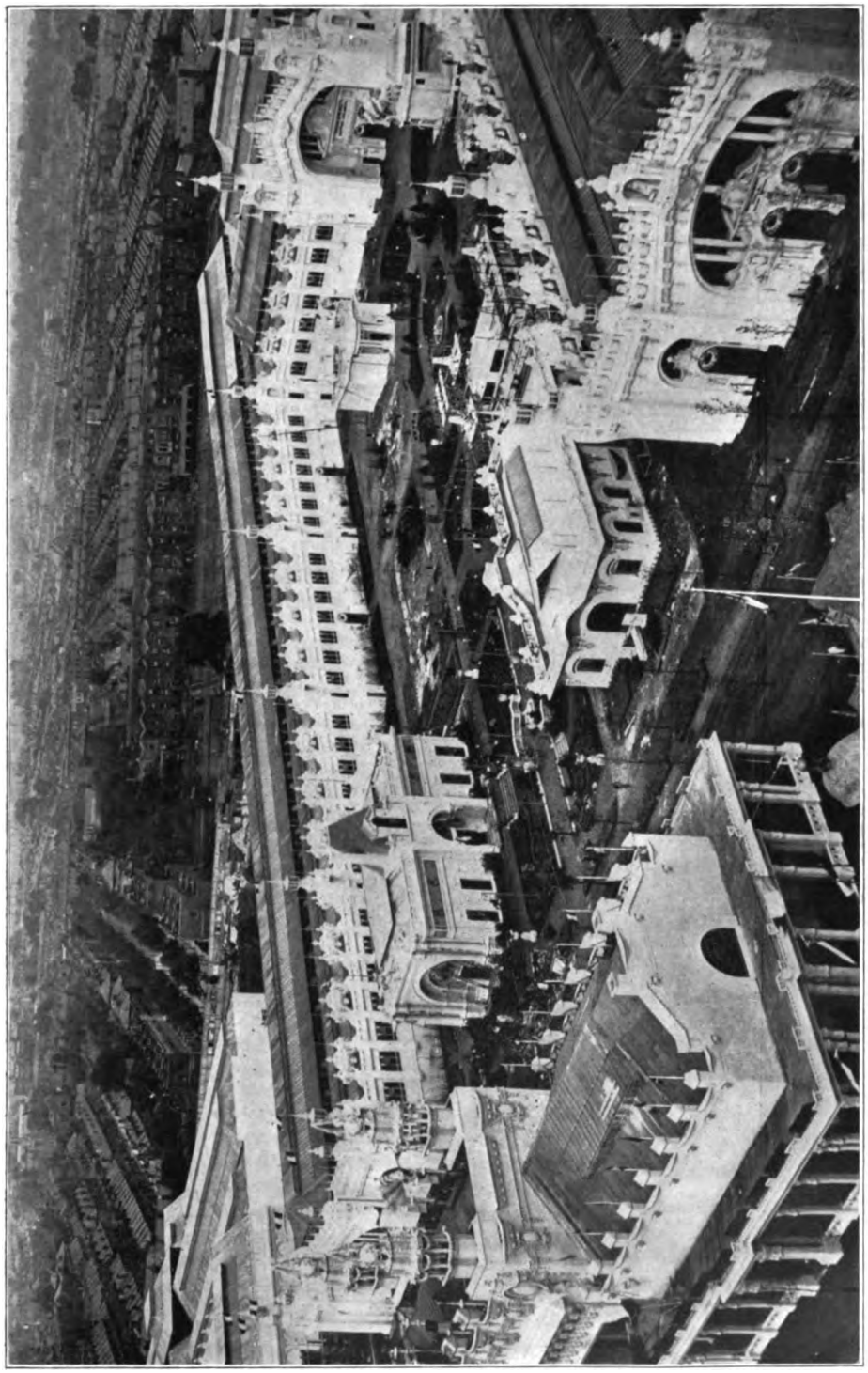


FIG. 7. MACHINERY HALL—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

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crowned by finials heavier still, while the surface of the domes themselves is studded with a ring of umbrella-like excrescences, which only serve to make the plasterwork below look as if it had given way beneath the superimposed weight. The rest is in keeping; very imposing when seen through half-closed eyes, but not to be criticised as a piece of architectural design; else you would see that the projecting arcades over the three portals rest on nothing, that the jambs of the central arch cut through the very architrave itself, breaking it up into disjointed fragments, and that the balustrading over the colonnade is very, very much tainted with the malady of *l'art nouveau*. Let us pass on to the last building in this group, the Palace of Music.

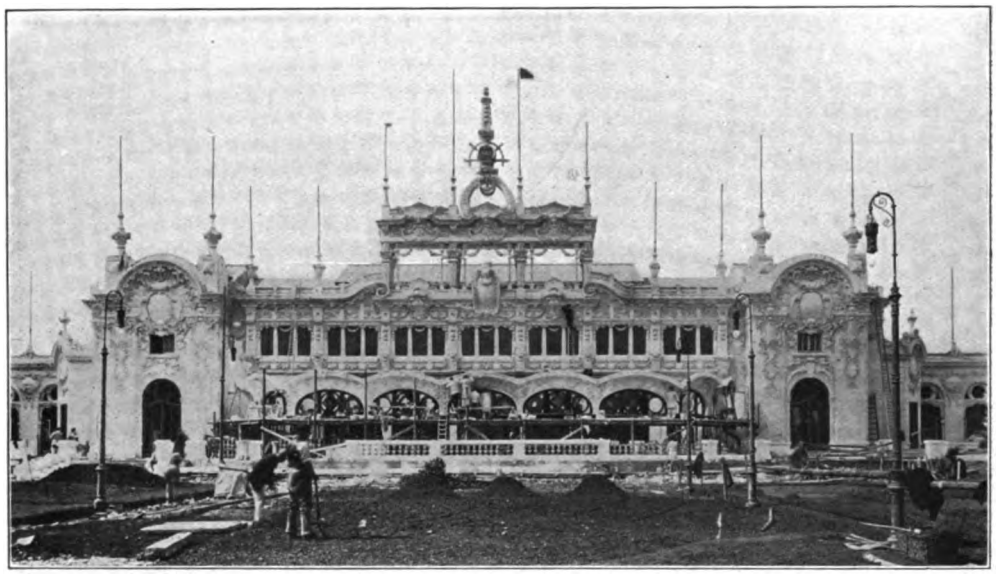


FIG. 8. GRAND RESTAURANT—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

This is one of the instances in which the architect has given himself a holiday from the observance of precedent. There are table legs instead of columns, and they are all jointed up nicely and prettily with garlands of flowers, making a ring round the whole structure. This being the realm of fancy, we may be permitted to suggest that they look like nothing so much as a group of children playing at "Here we go round the mulberry bush." Indeed, if the table legs suddenly began to waltz around the building nobody would be very much surprised. But to continue. There is a sort of balustrading above the loggia, intended to conceal the roof, but doing nothing of the kind; there are broken pediments, with keystones to patch up the place where they were broken; there are plaster lyres at intervals to proclaim the purposes of the building; then there are scallop shells to fill up sundry odd spaces. Finally, there is the tower, pleasing in its outline, but with no more meaning than the rest of the structure. Sundry musicians relieve the frieze by playing on harps in plaster roundels, and above them rises a something which we were informed (whether in jest or earnest we cannot say) was meant to suggest Music by reminding the beholder of a bunch of organ pipes. It may be so; but the same erection might also, and at the same time, remind him of an overgrown umbrella stand, as well as of a gigantic hot-water radiator.

A good idea of the laying out of this portion is to be gathered from the bird's-eye view, taken from the top of

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the "Flip-Flap," and showing the whole of the grounds lying to the south of the Elite Gardens. The bandstand shown in the foreground of the illustration is built on a novel plan, the ground being sunk in concentric rings, so that the performers are on a lower level than the audience, as in an orchestra. The effect of this arrangement, as regards the volume of sound, is excellent. The strange object behind the bandstand is the substructure of the Imperial Tower, into the air, mars the whole effect of this central part of the exhibition; and it is with a feeling of great satisfaction that we hear that the Executive Committee have decided to hack off all the steelwork at balustrade level.

The small and graceful building on the left of the tower (as seen from the "Flip-Flap") is the Royal Pavilion, built for the convenience of the King and other state visitors, while the corresponding erection on the right is



FIG. 9. THE STADIUM—FRANCO-BRITISH EXHIBITION, LONDON, 1908.
(Photo by E. N. Birkett, London.)

which, as already noted, has not been proceeded with, though it is rumored that visitors to the exhibition next year will find the tower completed, with a tea-room on the terrace overlooking the water, and a lift to carry them to a height of some two hundred feet above the ground level, whence they may enjoy extensive views over London's forest of houses, to say nothing of Wormwood Scrubbs Prison. The unfinished state of this building, with lank steel stanchions thrusting their noses

dubbed the "Pavilion Louis XV." The view includes a corner of the Fine Arts (extreme left) and a part of the Decorative Arts (extreme right), with the curved front of the Congress Hall rising in the center. Behind this lies the Indian Court, but dimly seen, and still further away can be faintly recognized the line of overhead building leading to the entrance in the Uxbridge Road.

Beyond the fragments of the tower there are fresh courts, appealing to

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every interest that man can be supposed to entertain. If he be mechanically minded, then he may find recreation and enjoyment in the vast Machinery Hall; if his thoughts are centered in sport, he can turn into the Stadium and gaze upon what is surely the finest athletic arena the world has ever seen; and if he be hungry he had better stop where he is, for in front of him lies the Grand Restaurant, to his left is the Restaurant Paillard, and on the right rises the Garden Club.

Two of the buildings mentioned above appear in another view, also taken from the convenient elevation of the "Flip-Flap," Machinery Hall and a portion of the Restaurant Paillard, better known as the "Twin Restaurant," from the fact that it is divided into two equal and similar parts. Machinery Hall is utilitarian rather than pretentious, as suits the purpose it is intended to serve. The length of its galleries may be inferred from the fact that it covers in all an area of something like 125,000 square yards. Within its arms lie the pavilion of the City of Paris and the "Pavilion Délieux," the latter erected to serve the noble purpose of bringing into notice the army of artists who regularly supply designs to the trades. The object of Mons. Andre Délieux, who has built the pavilion entirely at his own expense, is well expressed in the Official Guide to the exhibition: "In it will be found the signed work of those artists who have hitherto been unknown to the public, though the plastic and linear designs they supply to the trade have helped to make the name of many a celebrated firm. This interesting collective exhibit will be contributed to by the engravers, goldsmiths, decorators, ironworkers, potters, modelers and other art craftsmen of France. It will, therefore, afford them an opportunity they have never enjoyed before of manifesting their peculiar gifts, since, while giving invaluable assistance to their employers, they have hitherto always remained anonymous; and all the works shown are to be signed, each exhibitor thus having an equal chance of attracting the attention of art patrons. So splendid an innovation, having as its object the emancipation of the artist-designer, deserves all success."

We turn with a sigh from this noble ambition of Mons. Délieux to the design of the Restaurant Paillard. There is no building in the whole exhibition more frankly meaningless and ugly than this Restaurant. Instead of columns there are—we search in vain for a suitable name. They are the things that carry the veranda, and they have hideous, grimacing heads on them, tied up with the usual garlands of flowers. What the rest of the decoration is like may be dimly gathered from the photograph; it is beyond description.

The Grand Restaurant, by Mons. Thorimbert, presents a much more satisfactory design, though there is no meaning in the isolated pediment over the center, which does not pretend to do any work or serve any sort of purpose. The building was not complete when the photograph was taken, but a fair idea of its appearance can be gathered from it. There has been a little more decoration added, and a few more flags flutter above the glass roof; in other respects it has not been changed.

The Stadium is, beyond all manner of doubt, the one great triumph of the exhibition. The Indian Court has its charms; but the beholder is always conscious of the fact that it is, after all, something of a *tour de force*. In the Stadium it is different. If ever anyone should doubt the majesty of line or the fascination of perspective we should, if we could have our way, send him into the Stadium to look at those wholly wonderful rising rows of seats, diminishing into a haze of misty curves as they recede from the eye. It is a lasting object-lesson on the futility of much that we are pleased to call "architectural grandeur." Why, there is no architecture in it at all! It consists of a semi-circular-ended grass plot, surrounded by a cinder path and a banked cycle track, the latter measuring, on the center line, 733 yards to the lap. Outside this there are ranged some forty thousand seats, arranged in thirty tiers, and supported on a veritable network of lat-

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tice stanchions and girders. It boasts no architectural feature; the steel work is still gaunt and unclothed, but there can be few who will deny that it runs some of our great architectural "conceptions" very close. From the Stadium, with its impressive lines, we may learn that effect does not depend upon the amount and disposal of ornament. It is the rhythm of proportion and perspective that triumphs in the steel and concrete Stadium, just as it does in Palladio's marble Sala della Ragione at Vicenza. The great arena of sport gains, too, by association with its neighbors. The eye has already gazed upon the fussy whiteness of the countless pavilions which go to make up the exhibition, and is satiated by so much splendor long before the Stadium is reached. Then comes the grateful shadow of this English Colosseum as you pass under the lacework of girders. A glimpse of green grass, seat ranging itself above seat as you pass into the open space of the interior—there is the Stadium before you: vast, splendid, monumental. It is the great achievement of the Franco-British Exhibition and of the engineering profession.

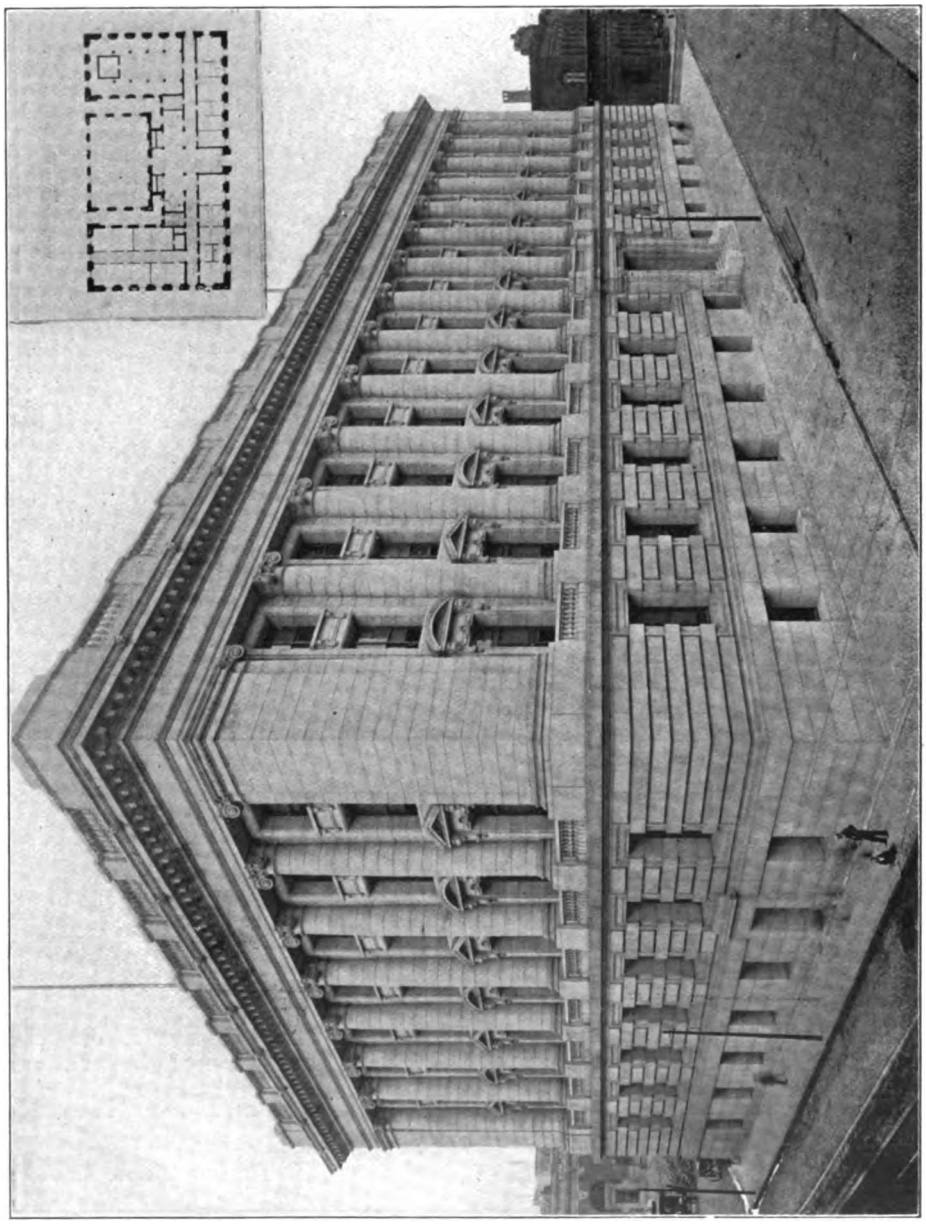
The colonies of England and France each have their pavilions, but few of them call for much notice, degenerating in most cases into side shows. Those of Canada (as yet unfinished) and Australia alone are on a large scale, the former with some good detail and a very pleasing flat-curved loggia in the center of each face. Australia shows a desire on the part of her architect to repeat cast-iron ornamentation, interspersed with a number of sheepsheads, which are evidently supposed to be emblematic of her staple industry. The same decorative *motif*, however, might with equal reason be introduced into the pavilion of her neighbor, as at first sight we mistook them for the outward and visible sign of New Zealand mutton within.

And then there are the usual side shows. No, not the usual ones. There is the giant "Flip-Flap" that has afforded so convenient a point for several of the photographs illustrating this article. It has been compared to a colossal pair of scissors, and it would be difficult to find a more suitable comparison. The "Flip-Flap" consists of two long cantilevers of latticed steelwork, placed so as to be capable of revolving in a seim-circle—like a pair of scissors with the handles buried in the earth. At the point of each of the shears, so to speak, there is a car for the reception of passengers, duly counterbalanced so as to retain its vertical position whatever the angle of the supporting cantilever may be. The rest is simple. Having parted with the usual sixpence, you are wafted into the air, pass the other leg of the huge machine at the highest point of your ambit, and descend on the other side, to receive the congratulations of your friends on the happy issue out of what looks to be a perilous journey.

Of the Scenic Railway and the shrieking multitudes who are daily carried past the miles of painted mountains and cotton-wool snow; the Canadian Toboggan which is no more like a Canadian toboggan than a soap box on wheels; Mont Blanc, whose eternal snows are far more eternal than those of the great original, inasmuch as they could not melt even in the hottest sun, being painted in oils; the Spider's Web, a variant of the time-honored maze; of all these it skills not to make a longer mention. They are all there, drawing their thousands of delighted visitors, helping to make the Franco-British Exhibition of 1908 one of the most popular, as well as the most beautiful, exhibition that has ever been schemed and brought to perfection.

Robert W. Carden, A. R. I. B. A.

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BALTIMORE CUSTOM HOUSE. Hornblower & Marshall, Architects.

Baltimore, Md.

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Chinese Junk, 1825.
(Copyright, F. D. Millet, 1908.)

Mr. F. D. MILLET'S

Decorations

IN THE



Liverpool Packet, 1840.
(Copyright, F. D. Millet, 1908.)

Baltimore Custom House

Within the past few years the art of mural painting has experienced rapid development in America. Its birth in this new land is dated from the time the late H. H. Richardson gave to John La Farge the commission to decorate Trinity Church, Boston; and at the World's Fair at Chicago it is supposed to have come of age. Since, in 1897, the Library of Congress, at Washington, served as a practice field for those who essayed to pursue this specialty, there has been a veritable epidemic of mural painting, so that a public building without such adornment is now rather the exception than the rule. The fact that the new Custom House at Baltimore, designed by Messrs. Hornblower & Marshall, and completed only last January, has been added to the list of those thus adorned would, therefore, be of comparative insignificance were not its decorations of exceptional merit and unusual character.

As in the case of Trinity Church, the commission for the decoration of this entire building was given to a single artist, and herein did the architects not only follow a good precedent, but manifest special wisdom. Mr. F. D. Millet, to whom the work was entrusted, had had both training and experience. In 1876 he assisted Mr. La Farge with his first commission, in 1893 he acted as Director of Decoration at the Columbian Exposition, and before 1907 he had executed some notable mural paintings for various public buildings. Better than the majority he understood the interdependence of the arts of construction and design, and was able to cope with a diversified problem. It was an opportunity to show what could be done under such conditions, and Mr. Millet is not one to waste opportunities. In order to be in continual touch with the architects of the building he opened a studio in Washington, utilizing an old, disused public hall on what was formerly known as "High Street" in Georgetown. There the principal mural paintings for the Baltimore Custom House were executed—not single-handed, of course, but with the aid of six or seven young assistants. Contrary to custom, Mr. Millet was not hurried, and whereas his one-time master was given four months to decorate a great church he was granted more than two years to devise his scheme and execute his decorations. And it was worth it. A new departure has been made in mural painting—a higher standard set for interior decoration.

The problem given Mr. Millet was to design decorations of a significant character for the principal room of the building—the "Call Room"—and to devise a color scheme for the walls and ceilings of all the corridors and office rooms; in other words, to completely beautify one unit and to create for it an environment which would be altogether harmonious. In order to fully appreciate the solution, therefore, it will be necessary to consider, first, if but

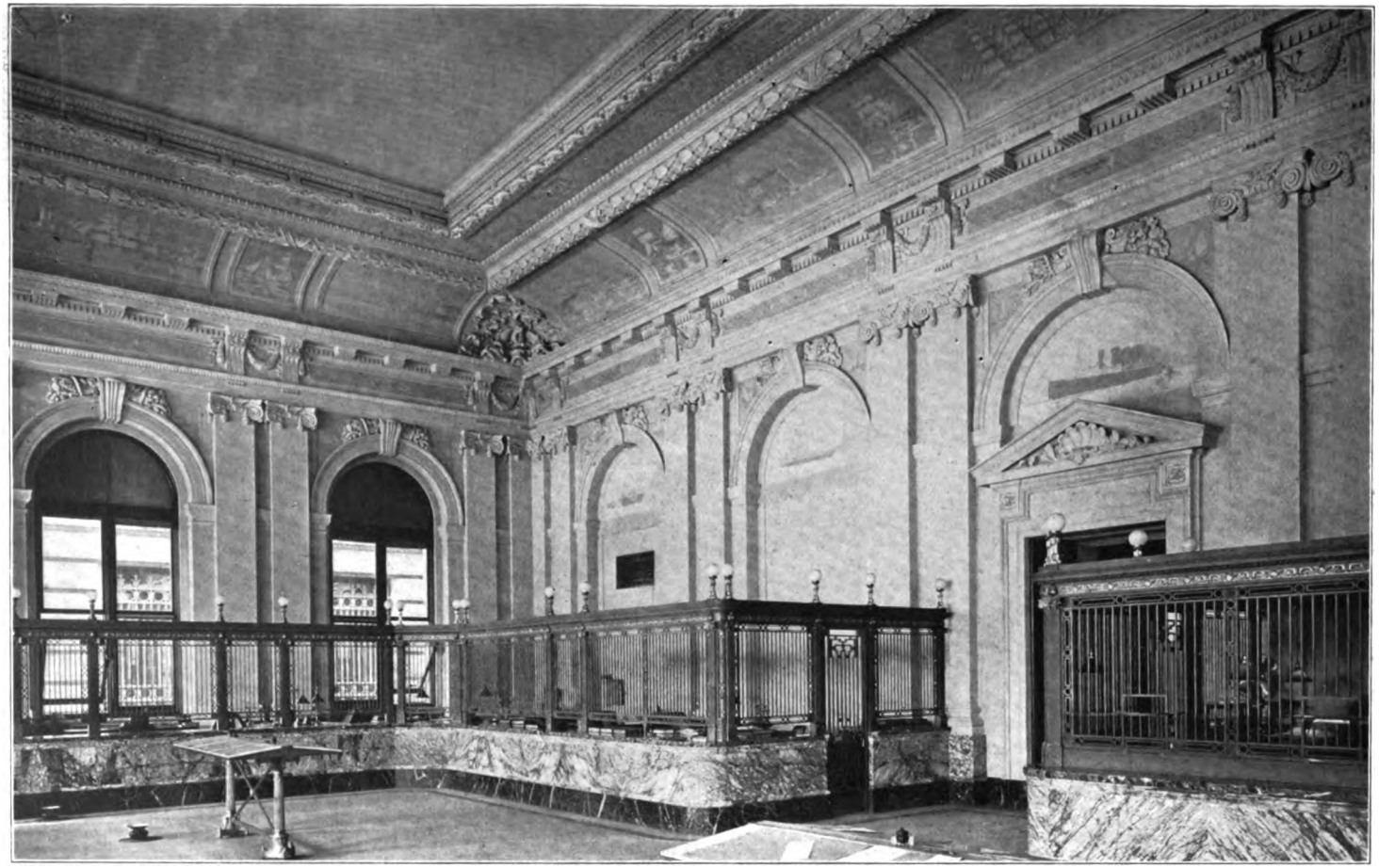
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briefly, the building itself. Indeed, in this one instance so closely are the decorations related to the structure, so truly is the finish part and parcel of the design that it is impossible to regard the one independently of the other.

Externally, the United States Custom House at Baltimore is impressive, dignified and grave. It is of granite, and the motive of the design has been apparently to attain a scale and a simplicity of elevation suitable to this material. The exterior walls and main partitions are entirely of masonry, though steel columns and beams, with terra cotta floors, make the rest of the interior construction. The plan is E-shaped, with a frontage on Gay street of about 252 feet, and on the side streets of about 140 feet, the central feature being the Call Room in the re-entering court, lighted on three sides. There are two stories in the base, three comprised within the column height of the Ionic order, and one in the attic, lighted from the roof. The scale of the stonework will be sufficiently suggested by the length of the lintel stones over the columns which measure seventeen and one-half feet.

This was the fifth public building awarded under the "Tarsney Act," which authorized the Secretary of the Treasury to employ architects outside of the government service to design government buildings, and it was begun and completed under the administration of James Knox Taylor, Supervising Architect of the Treasury, under Secretaries Gage, Shaw and Cortelyou. Its cornerstone was laid in June, 1903, and when the great fire of 1904 occurred it had reached its third-story floor, and the columns were up to about half their height. The effect this fire had upon it was both interesting and curious. Directly, it did it little harm, but indirectly it contrived to reverse its façades. At the time the building was designed a large brick structure stood adjacent to the rear on land which the government had not seen fit to purchase when it procured the Custom House site. This, to all intents and purposes, was a permanent fixture—a perpetual screen to the public building's rear; but the fire completely demolished it, and the desirability of an entrance on that side being patently demonstrated, the land was procured and a plaisance on that side is now being planned. Truly might the architects congratulate themselves that they had not followed common practice and expended the major part of their appropriation on the main façade of their building, feeling comfortably assured that the rear would never be seen, and well would it be if the lesson were taken to heart and less public buildings erected with an obvious back and front. This may be thought in a measure irrelevant, but it is an explanation due the architects, and may be found indicative of the spirit of their work. While the architectural design of the Custom House at Baltimore is virile and good, the charm of the building lies in its carefully considered plan and in its more than admirable finish. The building is essentially suited to its purpose, and every detail has apparently been thoughtfully studied and brought into relation with the whole. The interior is by no means ornate; it is, in fact, extremely simple, but there is no crudity, no cheapness, no haphazard effect. The proportioning of all the parts has been skilful—the height of the ceilings is in keeping with the size of the rooms, the halls are neither too wide nor too narrow, the relation of the door and window openings has been nicely adjusted, ornament has been handled reticently, materials made to manifest their inherent character. The piers, pilasters, dado and doorways on the first floor are finished in marble, of a warm yellow-gray, from Hauteville, France; not polished, but rubbed to a flat surface, and on the floors above, for the same purpose, white Vermont marble is substituted. The stairways and the floors of the halls and corridors throughout are of pink Tennessee marble, with, on the first floor—the main entrance and passage—a bordering of Sienna pink and umber veined marble. In two instances marbles have been used, and well used, in this building for purely decorative pur-

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BALTIMORE CUSTOM HOUSE.

The "Call Room," showing Mr. F. D. Millet's mural decorations on walls and ceilings. The decorative panels which are reproduced on following pages are some of those shown in this view.

Baltimore, Md. Hornblower & Marshall, Architects.

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poses, large slabs of Italian Breccia Violetta marble, rubbed to a flat surface and so set as to repeat their veined design, being effectively placed on either side of the principal entries, and a stringer of "Roseal" Tennessee marble being employed as paneling on the stairs. The doors, frames and other wood finish throughout the building is oak.

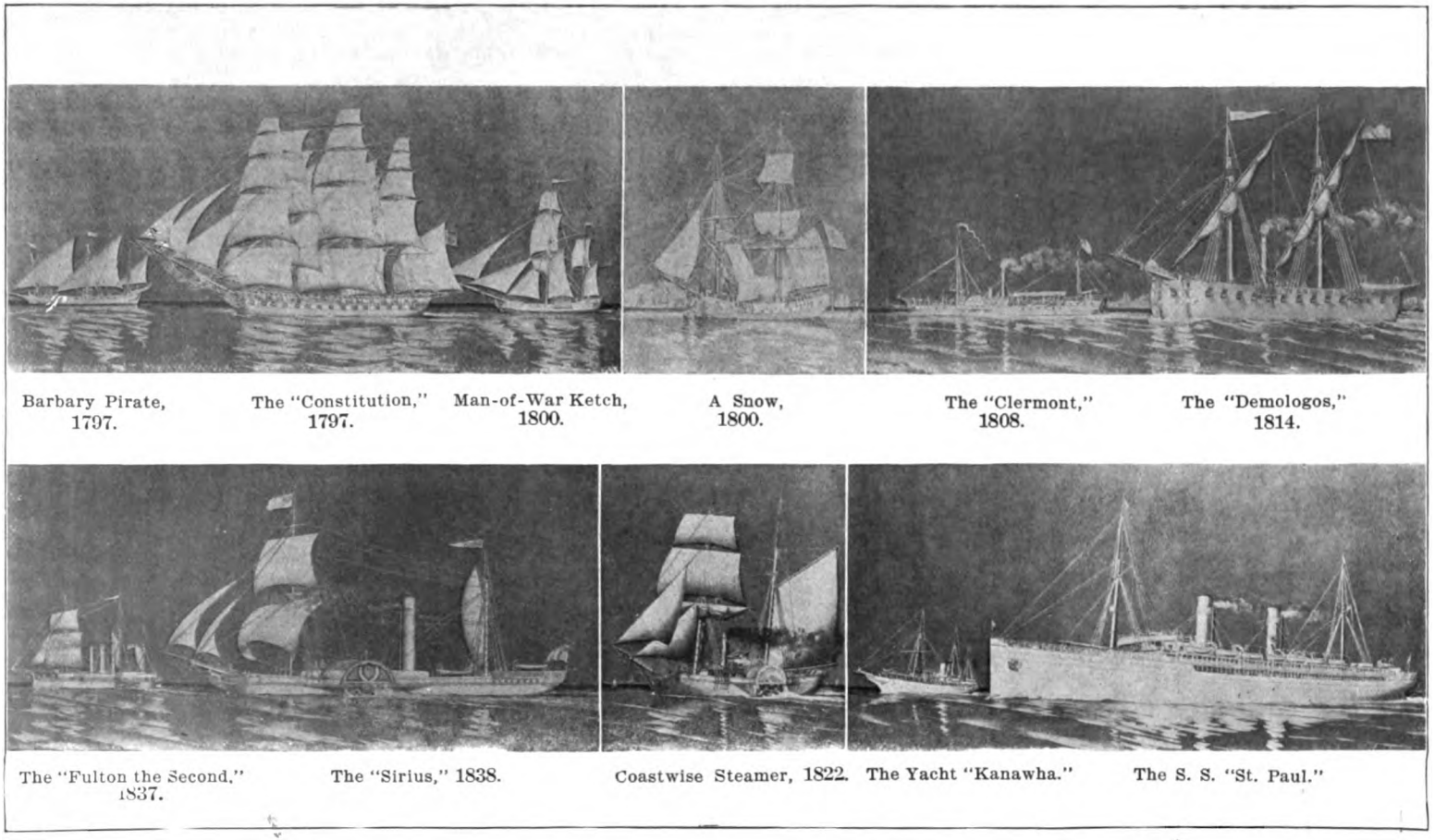
As will be seen from the plan and accompanying illustrations, the main entrance of this building opens into a spacious vestibule and broad stair hall, from which, to the right and left, the office corridors lead. The stair hall is lighted from the roof; the corridors by windows at their extremities and transoms on their course. The quantity of light and the materials already employed influenced Mr. Millet in his selection of colors for the walls, and while those he chose are not those which convention would prescribe, they are without question peculiarly appropriate and pleasing. The walls of the stair hall from the main floor to the roof have been tinted a green-gray, and given, above the dado, in darker tint, a stencilled border of little conventionalized dolphins. The walls of the corridors on the first and second floors have been painted a vibrant vermilion, those on the third floor burnt orange, and on the fourth floor—the attic story—gray. The borders on each floor are varied, but as in the case of the stair hall, sea forms have been utilized as motives of design. On the red the borders are in Naples yellow, which is more effective and less pretentious, by far, than gold. The walls of the office rooms throughout have been finished in gray-green, with dark green dados, with the exception of that occupied by the Collector of Customs, in which the decorations are rich shades of dull metallic blue and green. This tends to an harmonious scheme throughout, and as the doors of the offices not only may stand open, but are fitted with paneling of clear glass, the value of unity is perennially manifested. A word, too, should be said of the way in which Mr. Millet has employed light tints for the ceilings and thus brought the beams and cornices into key with the walls while retaining the structural proportions.

This leads quite naturally to the consideration of the Call Room, which is not only the principal room of the building, but the setting for Mr. Millet's pictorial history of "The Ship." It may, however, be advisable at this juncture to turn aside for a moment and note the decoration of the Sub-Treasury, lest later it be forgotten.

In functional importance this room is only secondary to the Call Room, and in finish it is nowise inferior. Situated at the extreme north end of the "E," with half of its windows on the court, and much of its wall space occupied by vaults, it is not particularly well lighted, and white and gold were, therefore, chosen for its decoration. Panels with ornamental lettering—inscriptions worthy of being held in perpetual remembrance — ornament the walls of the lobby, and a conventional design in which the seal of the Treasury is a central motive occupies a place over the door, the purpose being obviously to obliterate plainness rather than to create impression. To prevent the monotony of an unadulterated white and gold scheme a little insistent blue has been introduced back of the moldings on the ceiling which, while practically unnoticeable, infinitely enlivens the effect. The marble work in this room is green-veined Italian Pavonazzo from Massa-Carrara district, the screens iron and bronze.

Passing now into the Call Room, the door of which, by-the-way, is opposite the main entrance, one finds it to be rectangular in form, about 90 by 57 feet, with a height not exceeding 34 feet. The appearance is that of a banking establishment, the floor space being divided off by screens and the center of the room occuped by writing tables similar to check desks. Its architectural treatment of coupled Ionic pilasters, standing against the piers of a continuous wall arcade and supporting a paneled and bracketed frieze, surmounted by a dentil and medallion cornice, above

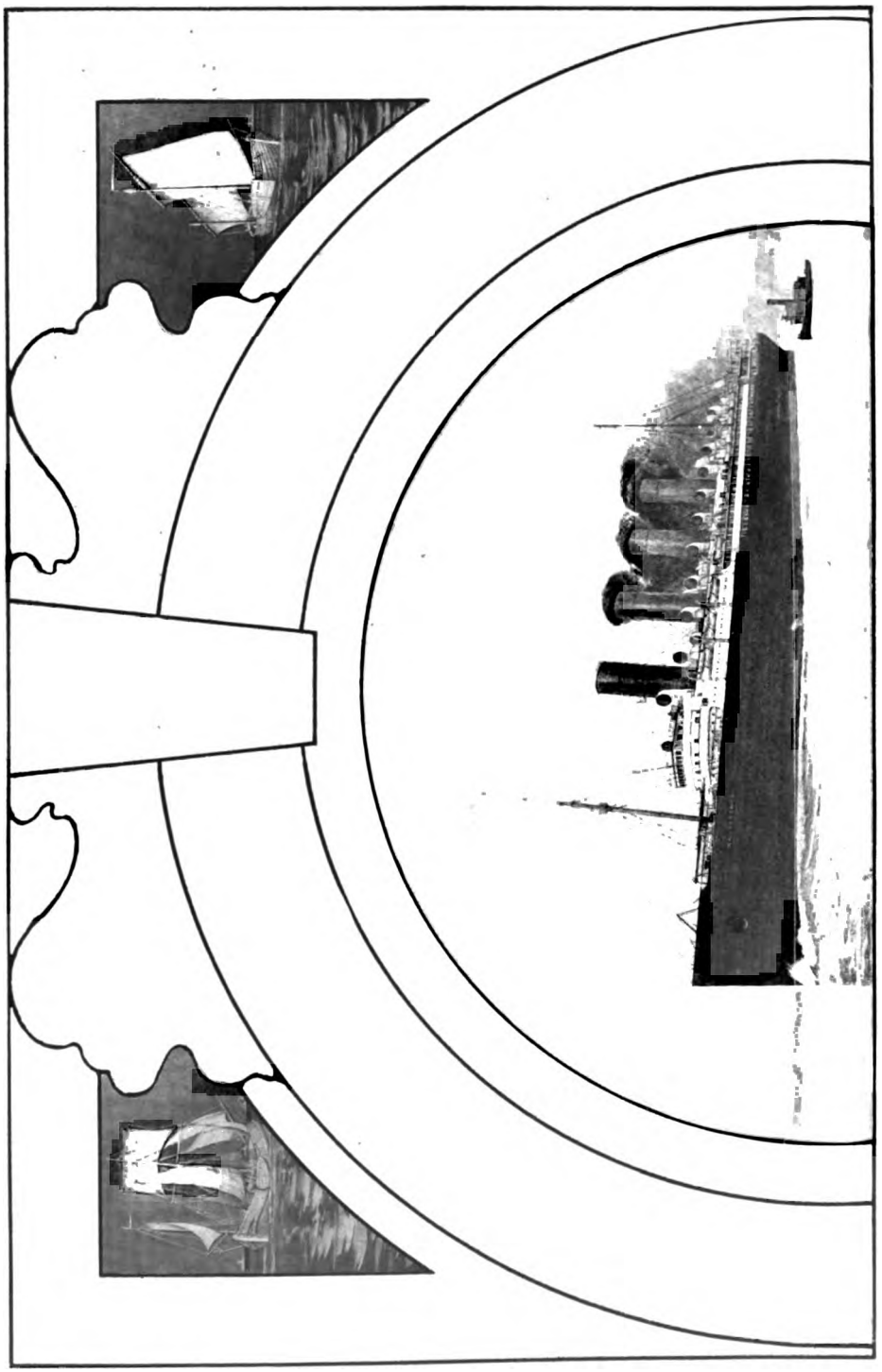
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DECORATIVE PANELS FROM THE CEILING COVE OF THE "CALL ROOM," BY F. D. MILLET.—BALTIMORE CUSTOM HOUSE.
Baltimore, Md. **Hornblower & Marshall, Architects.**

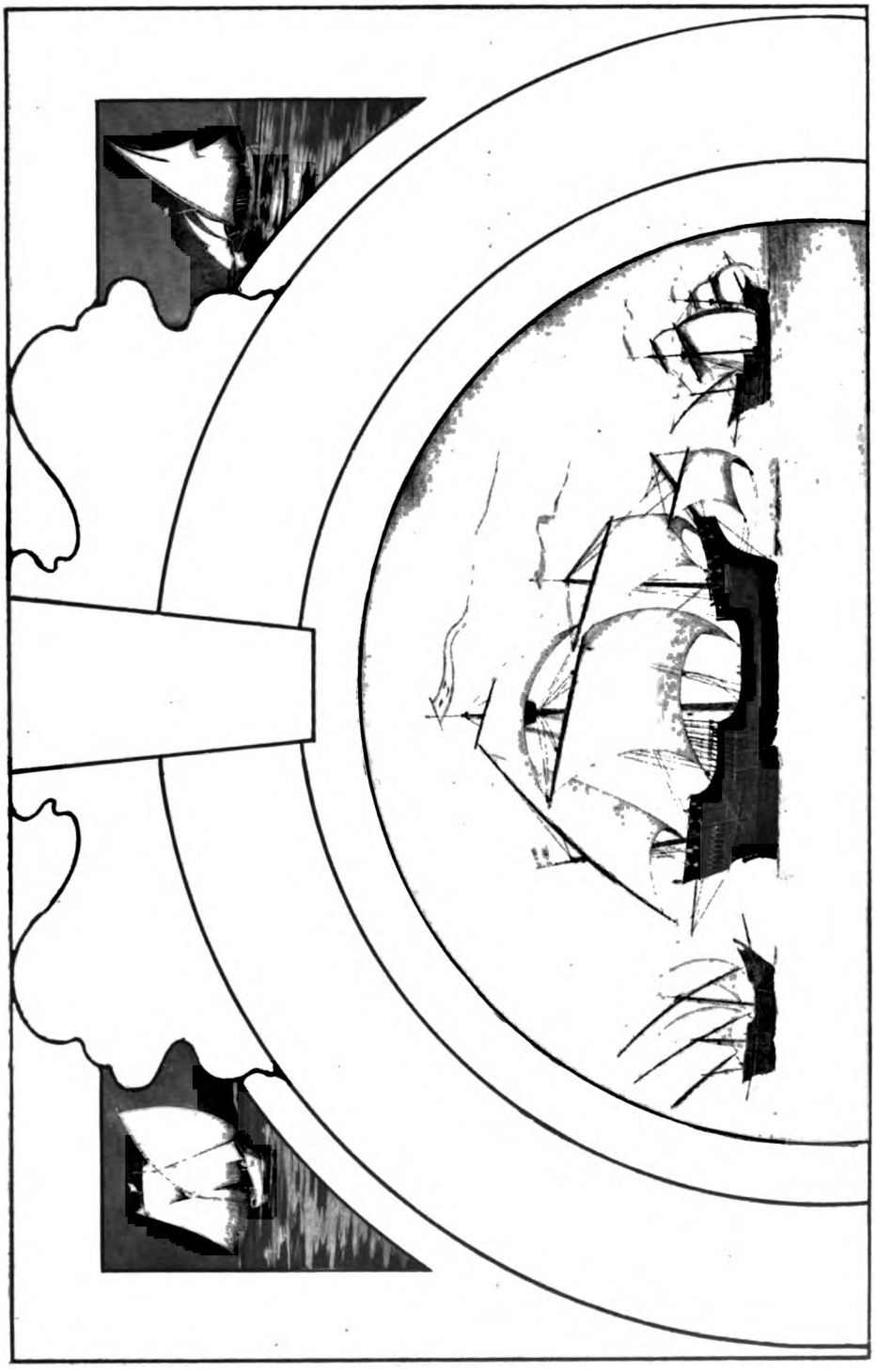
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DECORATIONS OF THE ARCH OVER THE ENTRANCE TO THE "CALL ROOM," SHOWN ON PAGE 101.
BALTIMORE CUSTOM HOUSE.
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A Spanish Caravel between two French Caravels (End of the Fifteenth Century).

LUNETTE AND SPANDRELS, BY F. D. MILLET, IN THE "CALL ROOM."— BALTIMORE CUSTOM HOUSE.
Baltimore, Md. (Copyright, F. D. Millet, 1908.) Hornblower & Marshall, Architects.

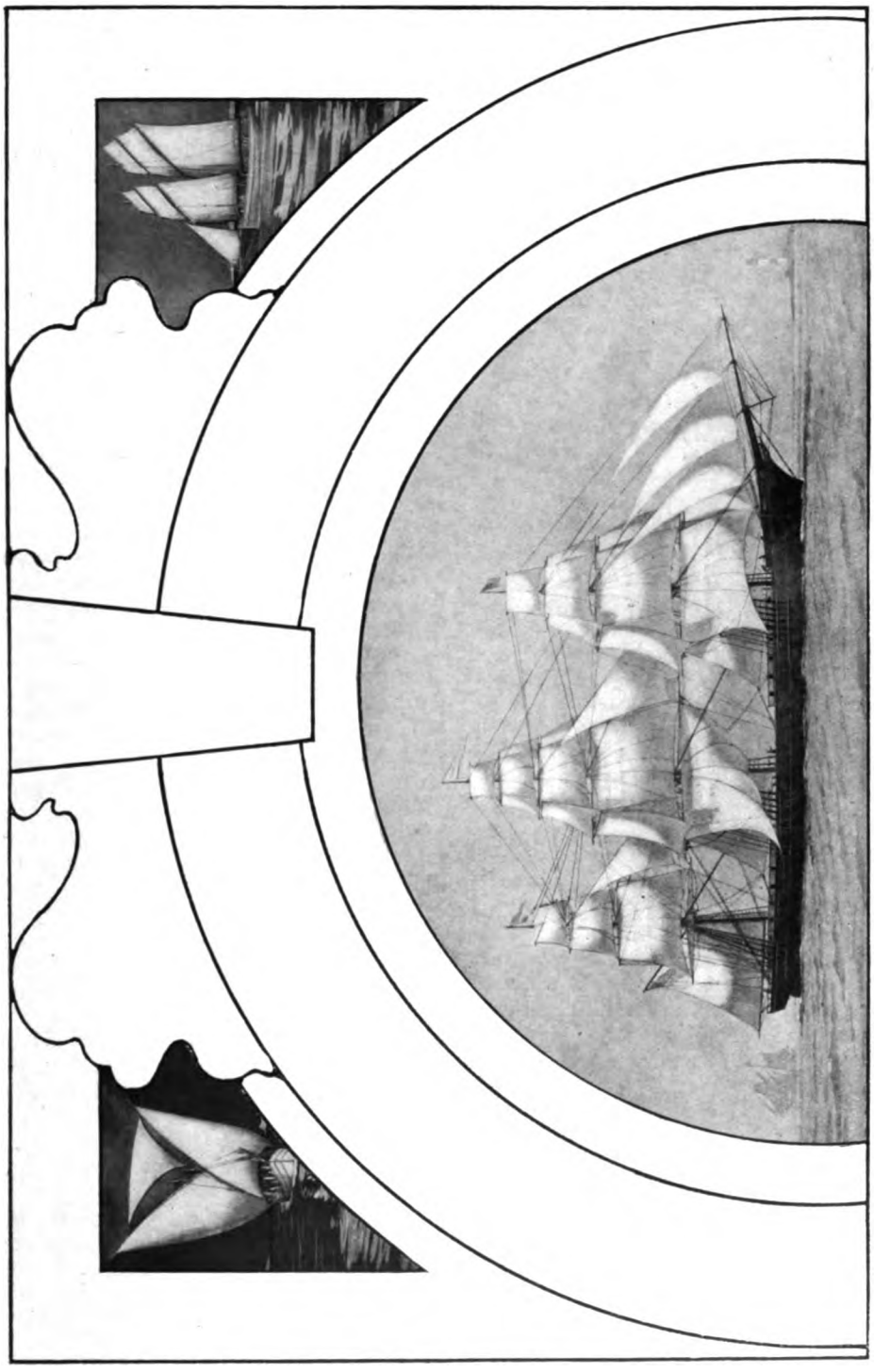
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while a depressed cove merges into the strongly enframed single panel of the ceiling, is produced in stucco, with a general finish in Caen stone cement. The lower part of the counter screen is in Italian marble, the face of Pavonazzo from Pietra Santa, of rich color and veining, with a base of Verde Antico Reboro from Campromorane, and a top of Verde Antico from Thessaly. From this, one's eye rises to the paintings—to the lunettes of the arcade, with the tiny spandrels over their shoulders, to the wonderful series of blue and green panels which form, in the cove, a frieze; to the beautiful borders which serve as frames, and finally to the ceiling itself, which seems like a fair dream. It is wonderful that so many objects, such a multiplicity of facts, could be crowded into so small a space without confusion! Not once, however, does it seem that the chronicler has got the upper hand of the decorator—that the artist has given way to the historian. Here is meaning, and plenty; here are records, and ones that are trustworthy, and yet here is real art and true decoration. If the man who has business with the Custom House wishes to study out the significance of these wall paintings he may, but whether or no, the environment which they create must impress him. The effect is charming, the style unique.

The ceiling and cornice were not designed to suit Mr. Millet's decorations, but the decorations made to fit them. Because the moldings and ornaments which were to serve as the frames to these paintings were frankly plaster (no gilt has been used in the room), Mr. Millet made his decorations manifest the inherent quality of this medium, and selecting as backgrounds flat blue and green tints which were opaque he wrought his designs in white in the style of cameos. The colors are positive, but very delicate—the ships clear-cut in outline, finely modeled, beautiful in form. Thus Mr. Millet brought into unity his several motives, tied them together, conventionalized them, held fast to the spirit of decoration, and yet left himself free to be literal, accurate and as minute in detail as he pleased. Nothing, perhaps, could have produced a happier result or one more completely insuring significance and effectiveness.

The history of shipping, from the earliest time to the present day, is given on the walls of the Call Room, and no pains has Mr. Millet spared to make it complete and graphic. He, himself, it is hoped, will some day tell of the searches he made for reliable data, of the way he more than once proved history incorrect, and how in unexpected places he stumbled upon valuable information, and in the meantime the literal-minded can rest upon the assurance that for every rope and spar and sail represented he had adequate authority. Probably few persons are aware that so many kinds of boats exist or existed as are pictured on the walls of this room, and even the nautically bred would scarcely relish the task of naming them. The panels in the border around the ceiling, of which there are twelve, illustrate the origin and development of the steamer. The panels in the cove, twenty-eight in number, more than half of which show groups of boats, illustrate the history of shipping from 1000 B. C. to the present time, the series opening with a pictorial representation of Egyptian, Greek and Roman galleys, and concluding with transcriptions of the warship "Olympia," the cup-defender "Reliance" and the transatlantic passenger steamer "St. Paul." Small craft of various periods, such as an Egyptian river boat, a Venetian gondola, a Dutch scallop, a flat Western river boat, a Chinese sampan, a lifeboat and a torpedo-boat destroyer are shown in the narrow panels over the arches, while in the spandrels to either side of these small sailing boats, to the number of thirty-two, are delightfully set forth. This, it would seem, might have left nothing for the five lunettes which occupy the arches on the one windowless wall, but for those Mr. Millet reserved special types most prominent in the evolution of shipping, which in a measure epitomize the history. Here, then, are found pictured a Spanish caravel between two French caravels, dating from the end of the fifteenth century; the Baltimore

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The Baltimore Clipper "Empress of the Sea," 1853.

LUNETTE AND SPANDRELS, BY F. D. MILLET, IN THE "CALL ROOM."—BALTIMORE CUSTOM HOUSE.
Baltimore, Md. (Copyright, F. D. Millet, 1906.) Hornblower & Marshall, Architects.

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clipper "Empress of the Sea," 1853; the "Mauretania," the steam yacht "Corsair" and a tug; a top-sail sloop and the British East Indiaman "Earl of Balcarras," end of the eighteenth century; and an English man-of-war between two Dutch vessels of the early seventeenth century. Unlike the panels in the cove and borders, these paintings are naturalistic—window openings looking out upon a real world. They are low in tone, atmospheric and to a degree decorative; but they do not entirely fit into the design, and they are not altogether convincing.

When Mr. Millet exhibited his decorations in his studio at Washington before they were sent to Baltimore, every one exclaimed "Beautiful!" but some looked dubiously at the great ships which were to be placed on the ceiling. Ships on a wall were very well, but ships overhead! That was a different matter. These doubts were certainly rational, but one visit to the Custom House now will dispel them. Words can scarcely describe the wonderful charm of this great ceiling decoration. A fleet of ten sailing vessels—ships, barks, a barkentine, a brig and a schooner—is seen entering a harbor on a hazy morning—all the sails are spread, and like gigantic sea-birds they seem to be drifting onward. All the mystery and the poetry of the sea is suggested, all its witchery and none of its awe. Soft, cumulous clouds float diagonally across the sky, the distance is veiled in mist, long reflections lie on the water.

The drawing has been accurately done, but color has been used sparingly—the pigment is by no means evident. Gentle browns, with ivory tints, prevail, and through them all a violet note asserts itself. Perfectly does the color scheme accord with the blues and greens of the cornice decoration; admirably does its spirit complement its style. The eye moves to and fro from the cameolike decorations to this apotheosis of the architecture of the sea with unalloyed pleasure, not contrasting, nor comparing, but delighting in each.

Too much the mural painters of our day have feared an idea, and too often they have become entangled in symbolism. Paintings which signify without being inherently literary are rare—commerce represented other than by an heroic female figure bearing some familiar token is scarcely recognizable. And yet why must we keep repeating the same old story—why not occasionally have a new thought? Mr. Millet has ventured it, and successfully. In every little factor of his decorations there is suggestion, appropriate significance. The plant forms which he has used for the border in the marginal ceiling panel are those native to Maryland—the dogwood, magnolia, maple, pine, oak and Indian corn—sea horses and scallop shells are used as elements in the design of the frames which enclose the small panels, and scrutinizing the lines in the lower border which decoratively fill in adjacent spaces it will be discovered that they are ropes. And yet all this, which might trick the fancy of the uninitiated, has been made thoroughly subservient to effect; it has to be sought out, it does not declare itself. What one sees first and last is a lovely mass of broken color, rhythmical lines, an effect of subdued gayety. Exquisite indeed are the pictures which Mr. Millet has put on the walls in this room wherein men daily transact ordinary business, and yet none too good are they for the place.

In conclusion, it may be interesting for the reader to know that the original appropriation to cover the cost of this building was one and a half million dollars, and with the exception of an allowance made by Congress to cover the contractor's loss by the great fire, it, including its decorations, was completed within that amount. This is an era of building enterprise, a time of growth and development, and every public building such as this, which reflects refinement of taste, genius in design and loving care in execution, marks an advance on the part of the nation and serves as a monument to the builders of our day.

Leila Mechlin.

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Innovations in the Street Architecture of Paris

From the standpoint of an American, accustomed to the rapid and bewildering changes which take place in New York or Chicago, the comparative stability of a foreign city is very gratifying. He can return to Paris or London, even after an absence of many years, possessed by a reasonable certainty that the streets which he has most liked will retain their customary aspect, that the private buildings which he had selected for some distinguishable quality will not have been disturbed, and that in all probability the small shops, at which he preferred to trade, will still be doing business in precisely the same situation. Foreign capitals do not have to submit to the incessant and ruthless process of reconstruction which makes the New York of one generation a city radically different from the New York of the next generation. They change, of course, but if they have periods of rapid and radical alteration, the transformation is guided and planned rather than the result of blind economic forces.

The supreme example of a city which has undergone a drastic reconstruction according to a carefully matured plan is, of course, Paris. During the second empire the street layout of the whole city was revised, and in accordance with this revision, a series of reconstructive public works were undertaken, which involved on the part of private property owners the erection of a complete set of new buildings on many of the chief boulevards and avenues of the city. During these years, consequently, Paris was being altered under the initiative of the government far more rapidly than she would have been altered under the pressure of ordinary economic conditions; but the object of this alteration was to fasten upon the streets and buildings of Paris certain permanent and adequate characteristics. The city had been provided with a layout more convenient and architecturally more effective than any other city in the world. Certain architectural forms were adopted which were intended to make private houses on the most important thoroughfares contribute to a single harmonious effect; and it was expected that the future growth of Paris would be determined by the lines and forms already established. It would grow, that is, as mature trees grow, almost imperceptibly, and with a difference of effect due entirely to greater scope and amplitude.

Paris, as it exists in the minds of all Americans, is, of course, the Paris which emerged from the process of Haussmannization. That work had not been entirely finished in 1870, when the second empire was overthrown, but its most essential parts were completed. The work was continued under the third Republic, and is in certain parts of the city still under way. These minor supplementary changes concern, however, only a few outlying neighborhoods. The Paris in which so many Americans have lived since 1875 has changed but little. While it has increased in size by almost a third, this increase has been entirely a matter of accretion. It has not involved any important process of internal transformation, such as involved in the growth of every American city. The main avenues and boulevards look very much as they did thirty years ago. The additional building, which the increase in population has necessitated, has taken place almost entirely in the newer districts or in those more remote parts of the old city, in which new streets and avenues are still being laid out. Paris has seemed to be fulfilling the expectations of the architects and engineers, who sought to determine the character of its future growth along permanent and adequate lines.

Nevertheless, signs are not wanting that hereafter the expectations of these able men may be falsified. It looks as if

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REINFORCED CONCRETE APARTMENT HOUSE IN THE RUE FRANKLIN, PASSY, PARIS.

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NO. 34 AVENUE DE WAGRAM, PARIS.

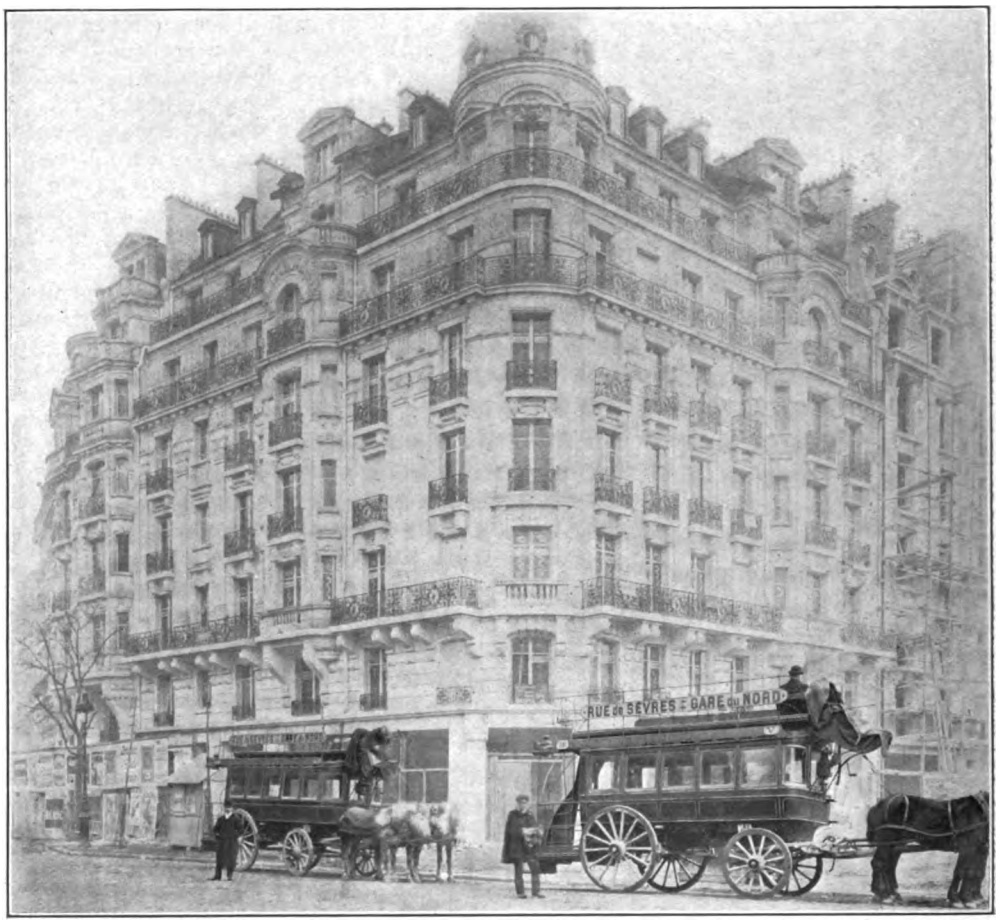
during the next generation the continued growth of Paris will inevitably involve certain important alterations in the appearance of the older part of the city, and that at the end of another thirty years the architectural complexion of Paris will be sensibly modified. The admirable plan worked out by Baron Haussmann and his assistants is not proving to be as adequate as anticipated. Economic conditions are beginning to demand the partial rebuilding of some of the older parts of the city. The results of this rebuilding, while they will not be revolutionary, will at least effect a sensible change in the appearance of many avenues. The character of Parisian street architecture is assuming certain new phases, and if this new movement continues and its results accumulate, the average Parisian street may obtain an architectural emphasis and atmosphere very different from the effect of the traditional Parisian street.

In the first place, the street system of Paris, with all its merits, is obviously proving inadequate to the pressure of traffic which the growth of the city has created. The delays at certain times in the day at important intersecting points are as bad as they are in New York. A course in a cab during the busy hours which follows the line of the grand boulevards across the Place de l'Opéra to the Place de la Concorde is subject to as many delays as is a journey of similar length on Fifth avenue. The traffic is held up whenever an important street or boulevard intersects the main thoroughfare; and these delays increase as the conveyance reaches the vicinity of the Place de l'Opéra. The writer has been held up for fifteen minutes at a time about five o'clock in the evening on the Rue de la Paix. The local authorities are doing their best to relieve the crush by regulating the flow of the traffic, and wherever possible by diminishing its volume; but their regulations result in no more than a slight alleviation, and do not even look in the direction of a permanent cure.

Manifestly no regulation, however drastic, will do more than grease the wheels of a machine which is carrying a heavier burden than it can properly bear. The street traffic of Paris has increased enormously during the past ten years; and it is destined to increase quite as rapidly hereafter. The increase is pro-

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portionately much larger than the increase in population, because it has been and will continue to be stimulated by improvements in the means of transit. In spite of the fact that the development of the metropolitan system of underground roads has diminished the number of people who would have ridden in



NEW BLOCK OF APARTMENT HOUSES AT THE CORNER OF THE RUE DE SEVRES, OPPOSITE THE BON MARCHÉ, PARIS.

cabs and omnibuses, the street traffic also has been prodigiously augmented by the use of motor-cars and cabs. The rapidity with which these vehicles move around the city enables people to do many more errands and pay many more calls than they otherwise would. In no other city in the world is the use of automobiles so general, and the existing pressure of traffic is due entirely to the constantly increasing popularity of these vehicles. The very convenience of the street layout of Paris contributes to this result. The great majority of places in the city which a man who can afford a motor-car wants to reach are easy of access; and the Parisian does many little acts of commercial or social business by means of a visit which in New York would require only a telephone call. Although the motor car industry is at present passing through a crisis, there is no reason to suppose that this crisis is any more than temporary. The motor cabs are constantly increasing in numbers; and the peculiar character of the cosmo-

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NO. 100 BOULEVARD DE COURCELLES, PARIS.

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politan population of Paris makes it certain that the automobile street traffic will continue to expand.

It looks as if no permanent cure could be found for the congestion, except by further changes of the street lines in the heart of Paris. The number of points at which large streams of traffic intersect



NO. 50 AVENUE VICTOR HUGO, PARIS.

at right angles will have to be diminished, certain narrow streets will have to be widened, and perhaps here and there additional streets cut through. Such changes will, of course, be required in the very heart of Paris, and when they are brought about, they will begin the transformation of those very portions of the city with which Americans are most familiar.

Nor is this all. Economic conditions are beginning to operate in favor of the reconstruction of some of the older private buildings in the centre of Paris. Hitherto such reconstruction has not been necessary. The work of replanning accomplished more than a generation ago afforded Parisian business abundant opportunities to overflow into almost equally accessible situations in the same neighborhood; and the legal limitation of the height of buildings deprived property-owners, whose holdings were peculiarly central and convenient, from placing exceptionally high buildings on such plots. The effect of these restraints is now, however, beginning to wear off. The tendency of radical improvements in the means of transit, such as the underground system and the use of motor cars, is at once to distribute population and to concentrate business. Shops and places of amusement which are very centrally situated obtain more than ever the benefit of their convenient locations, because they can be even more easily reached from even greater distances. The effect of this special condition, co-operating with the effect of such a general condition as the universal rise of prices in Paris, has been to increase very largely the value of real estate in the neighborhood of the Place de l'Opéra. When leases terminate in this vicinity tenants are often obliged to pay twice as much as they did ten or fifteen years ago, and when rentals can be augmented by such very large percentages, the property owner is supplied with the strongest kind of an inducement to make his building as big as possible.

His powers in this respect are, as we have said, extremely limited. Buildings in the vicinity named are usually seven stories high, and the law confines him to an eight-story structure. The cases in which it will pay to substitute an eight for a seven or even a six story building are not, of course, very numerous. In a number of instances property owners have merely added a story or two to their existing edifices; but in other instances, wholly new buildings are con-

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structed. The most conspicuous of these newer structures is the one the Equitable Life is erecting at the intersection of Rue de la Paix and the Boulevard des Capucines, but there are others, including



NO. 72 BOULEVARD DE COURCELLES, PARIS.

two new buildings on the Rue de la Paix. In the majority of instances, however, the reconstruction is proceeding on the side streets in this neighborhood. On these side streets are many old houses, not more than five or six stories high, ill-planned and ill-equipped for modern uses, which it will pay the owner to replace, and the bulk of the reconstruction which will take place during the next ten years will have its justification in the existence of these superannuated buildings. In New York they would have been replaced long since; and it will gradually pay to replace them even in Paris, where the new building can only be a few stories higher. The process will be slow, because the whole movement of economic readjustment in Paris is slow, and because real estate in Paris is usually tied up by long leases. But it has already begun; and in the course of fifteen or twenty years it will do much to alter the aspect of this part of Paris, particularly in case it is accelerated by those changes in the lines of the streets whose necessity has already been indicated.

The Parisians have themselves become very much excited over these impending changes. They regard an eight-story building as monstrously high, and they apparently anticipate that their fair city will, because of such towering edifices, become as much of a discordant architectural jangle as is New York. No such disastrous result is, however, to be apprehended. The new buildings are not much higher than the old ones, and their height is not architecturally disproportionate to the width of the more important streets and avenues. If they disturb the architectural integrity of the streets on which they are situated, it is not because of their slightly increased height, which is usually treated in such a manner as to be scarcely apparent. Their intensive and jarring character is not due to their height, so much as to certain new tendencies in the ordinary method of composing a street façade. Of late years the street architecture of Paris has been undergoing a change which is by way of being revolutionary, and if this new tendency continues to gather force it will in the course of time give the architectural appearance of Paris a new and a different emphasis.

The street architecture of modern Paris has until recently developed with remarkable continuity. The French were first to seize the idea that the

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oper unit of design for street architecre was rather the block than the individual house; and they were the first to it this idea intelligently into practice. ne Place des Vosges, which was the



THE MADISON HOTEL,
No. 48 rue des Petits-Champs, Paris.

liest of the public squares of Paris to officially planned, was designed unr the influence of this idea. The uildings on the four sides of the square e practically uniform, the idea evidently being that a better total effect was obtained by sacrificing the individual prominence of each particular building. When the Place Vendôme was laid out over a century and a half later the same idea prevailed. The square is designed as a whole, and the scheme suits its purpose admirably. With its mixture of quaint dignity, of quiet reserve, and yet of smiling courtesy, it remains to this day unique in its peculiar French combination of propriety and charm. Moreover, the architectural dispositions, whereby this effect was obtained, did much to give to the street architecture of Paris its prevailing forms. The triple division of the façade, the Mansard roof, the union of two or three middle stories by means of pilasters, and the dominating effect of the strong and continuous lines of cornice and of the course of stone or the balcony above the entrance floor—all these means of giving unity and distinction to the architecture of a block have until recently been generally accepted. The idea was, of course, that the practice of making a house on a street look obtrusively individual was as much an example of bad manners as the practice of dressing and of talking loud in a drawing-room. The only way in which a gentleman can impart individuality to his behavior in society is by a bearing which adds distinction to certain accepted forms of behavior; and an individual house shut in between the other houses in a block is in precisely a similar situation. The highest individuality, to which it can properly aspire, is that of being a peculiarly distinguished example of the regular thing.

It is some such idea which, as we have said, is responsible for the existing architectural appearance of Paris, and it is by virtue of this idea that the architectural opportunities offered by the admirable plan of the city have been realized in its private buildings. The idea of uniformity in street architecture was, indeed, carried too far in the first example of an official plan which was executed in the nineteenth century. The architecture of the buildings on the Rue de Rivoli, which was built under the régime of the first Napoleon, is absolutely uniform,

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NOS. 38 AND 40 AVENUE DE TROCADERO, PARIS.

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NO. 24 RUE DE CHÂTEAUDUN, PARIS.

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and if many more examples of such complete regularity had been imposed upon the streets of Paris, the effect thereof would have been most monotonously dreary. In the case of the Rue de Rivoli, the effect is not bad, partly because the design itself is acceptable, and partly because an absolutely uniform street front looks at its best when facing a park—as the Rue de Rivoli does for many of its blocks. We do not believe that anybody who sincerely likes and enjoys the traditional appearance of Paris would care to have the Rue de Rivoli changed; but at the same time it must be a matter of congratulation that the experiment was not repeated. When the great period of reconstruction came under the second Empire, unity of effect was preserved without degenerating into uniformity; and it was preserved for the most part by means similar to those which had been used on the Place Vendôme. The houses on the same block were bound together by the use of the same building stone, by an approximation to the same height, by a triple horizontal division of the façade, and by the emphasis of these horizontal lines. As one looks up an important Parisian avenue, the practically continuous lines of the two rows of balconies tie the whole frontage together so emphatically that the vertical members lose importance in relation to the dominant effect. In certain instances, no doubt, the adherence to this convention has resulted in a mere correct timidity of design, as if the architect in accepting the convention, had abandoned all idea of achieving any distinctive success. Nevertheless, the architecture of the Parisian streets, although constituting in its entirety the supreme example of the successful subordination of the individual house to the necessary social unit of the street, contains more examples of individually interesting buildings than does a city like London or New York, in which every man builds what is right in his own eyes.

It should be added that, while the tradition roughly described above dominates the street architecture of Paris, its domination is not despotic. In all the chief streets and avenues in the residential district, there are many exceptions to the prevailing rule. Sometimes the exception will consist of a fine hotel separated from the street line by a spacious court. In other cases a three or four story private residence has been erected on the building line, and is sharply distinguished



NO. 8 RUE DE BABYLONE, PARIS.

in many respects from its taller neighbors. Occasionally, moreover, these private houses are designed in a spirit of almost violent originality and are an evident witness to the fact that France also is not without its protestants. But these exceptions are neither sufficiently numerous nor for the most part sufficiently re-

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bellious in spirit to injure the consistent effect of Parisian street architecture, and their justification is found in the evident propriety of making private houses pre-



NO. 44 RUE DE BASSANO, PARIS.

sent an appearance on the street different from that of apartment houses.

Neither, of course, would Paris be anywhere near as interesting as it is, in case it had been entirely Haussmannized. The broad avenues, the big squares and the regular architecture have been in part added to a network of narrow streets and irregular buildings and in part imposed thereon; and the fascination of the city consists partly in the contrast between the old and the new Paris. So on the one

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hand Paris is the triumphant example of the modern art of making a city according to a well-devised plan; on the other hand, next to Rome, it is being history for eight hundred years; and the story is written in its stones. It is not only the official residence of a strongly centralized government and a



NO. 13 RUE DE LA PAIX, PARIS.

cause of the wealth of its surviving associations the most interesting city from the historical point of view in western Europe. The Parisians have been makhighly civilized society, it is also the residence of the most turbulent and insubordinate democracy of modern Europe. The centralized government as the or-

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gan of the social order has in the long run been able to dominate the insurrectionary commune, and the expression of this domination in the street architecture of the city is the plan of Baron Haussmann, with its broad avenues, its great squares and its general effect of order



NO. 9 RUE DU PORT-MAHON, PARIS.

and unified strength. But the insurrectionary commune, which made its power felt at the time of the League, of the Fronde, in 1789, in 1830, in 1848 and in 1871, has been subdued without being extirpated; and its appropriate dwelling still remains in the narrow tangled streets, the tall buildings and the blind alleys of such quarters as the Marais and the Temple. Paris as a whole city consists in a wholly unique combination of this tradition of order and of this tradition of insurrection, and the second of these tendencies is as essential to its peculiar individuality as is the first.

In the beginning, as we have seen, the third Republic did not in its architecture break with the tradition of the second empire. The remaining work called for under the Haussmann plan has been slowly accomplished; and for the first quarter of a century the street architecture of the new régime did not differ in any important respect from that of its predecessor. In late years, however, a palpable change has been taking place. Just as in its political programme the Republic has gradually tended to become more radical, so French architecture has been gradually departing from the traditions which have determined the appearance of the streets of modern Paris. Since 1900 almost all the new apartment houses which have been erected have been more or less influenced by a spirit of insubordination. A persistent and a concerted attempt has been made to bestow on the design of these buildings more variety, novelty and individuality than the older tradition would have permitted; and this attempt is year by year becoming both more conscious and more radical. Its extreme expression is to be found in the occasional buildings which are frankly examples of "art nouveau"; but the revolt is far from being confined to the professional architectural revolutionists. It is almost equally apparent in the work of architects whose technical stock in trade is derived from the academic warehouse. However respectful these gentlemen are in general of the national architectural tradition, they are assuredly in full revolt against the forms which hitherto have determined the design of Parisian apartment houses.

The frankly revolutionary examples of Parisian architecture are still extremely rare. The writer spent many days in tramping the streets of the city without discovering more than a dozen. Of course a deliberate search would have been rewarded with a larger crop; but

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NO. 40 RUE FRANCOIS 1ER. PARIS.

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NO. 78 RUE BLANCHE, PARIS.

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such buildings are still so exceptional that practically they do not count as a phase of Parisian street architecture. A couple of them are reproduced herewith, one of which, situated on Rue Franklin, is constructed of concrete. As an experiment in the frank treatment of a new material this building has its interest; but the interest it arouses is assuredly not æsthetic. The architect has not made any attempt to give it a pleasing aspect; and it should be considered rather as the raw material of architecture than as the finished product. No similar reproach can be leveled against the designer of No. 34 Avenue de Wagram, M. J. Lavirotte. If this house does not look pleasing, it is not for lack of effort; but one would hesitate to say that the effort is successful. A more complete contrast with the conventional Parisian apartment houses on either side could scarcely be imagined. The architect deliberately sought to make this contrast as thorough-going and as striking as he could. The materials he has used are brick and colored terra-cotta; and this difference alone would be sufficient to make the building an extraordinary exception amid the uniform stone work of Paris. The narrowness of the edifice in proportion to its height is equally a departure from the ordinary Parisian custom. The architect has not tried to emphasize this height. He has, on the contrary, cut his façade in two at the level of the third story by a heavy stone balcony; but he has permitted himself two salient vertical projections on the façade, one on the left side below the balcony and one on the right side above. Whether this sort of thing gives one any pleasure or not will, of course, depend largely upon one's general conviction as to the necessity of an architectural revolution, but its effect upon the writer is profoundly irritating. A façade such as this may embody many sound ideas, but most assuredly they are not rendered in a pleasing form. The ascetic attenuation of the concrete building on Rue Franklin is to be preferred to the meaningless complications, the over-elaboration, the utter lack of repose and the straining for effect of this building on Avenue de Wagram. Such a façade is, however, as far as possible from being representative even of the newest Parisian apartment houses. The great majority of the architects of these buildings are protesting in their newer work rather against a local tradition than against the general French tradition. They have become tired of the convention which subordinates the design of individual houses to that of the whole street frontage; and they have been seeking to impart to the appearance of these particular buildings more individuality and more variety. As a means to such an end one radical departure from the Parisian convention became immediately necessary. The street frontages had been tied together by the emphasis of the horizontal lines, and an absolute condition of a more varied kind of design for individual buildings was the substitution for these emphatic and continuous horizontal lines of strong vertical projections. Such projections, while by no means universal, are to be found on four contemporary apartment houses out of every five. So many consequences follow from the strengthening of the vertical rather than the horizontal dimension of the façade, that this innovation will constitute the best point of departure for the special consideration of a few of these newer buildings.

Examine, for instance, the large apartment house on the Rue de Sévres, opposite the Bon Marché. In this building the architect has inserted a salient projection on each of the two façades, and he has emphasized the height of the corner by making it culminate in a round tower; but although he has so far succumbed to the new fashion, he has not sought on the whole to make his design conspicuously individual. The effect of his vertical projections has not been over-strengthened, and the horizontal lines of his balconies hold their own in the general composition. The design as a whole, however, gives the sense of being unnecessarily complicated and broken, and it would have looked far better, in case the pilasters had been omitted, the

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ornament reduced in quantity, and the plain wall space, whatever there was of it, allowed to take care of itself. This corner can be profitably compared to another one at No. 100 Boulevard de Courcelles. In the case of this second apartment house, the vertical projections are placed at the ends of the two façades, and receive a treatment similar to the tower on the corner. They count much more strongly in the effect of the façades than do the projections on the apartment house opposite the Bon Marché, and they give a much more salient emphasis to the height of the building. They are more simple and more strongly treated, and their effect is not balanced or counteracted by the usual line of balconies above the line of the second floor. The comparative simplicity of the treatment makes, however, the effect of this building much better than that of the one first considered. The number of windows in proportion to the dimensions of the two frontages is quite as large in the second house as in the first, but they are so treated that the walls retain a certain amount of continuity and solidity.

Two other apartment houses which may profitably be placed side by side are those at No. 50 Avenue Victor Hugo and at 72 Boulevard de Courcelles. In both these instances the same tendencies reappear, adapted, however, to lots situated in the middle of the block. The salient vertical projections can again be remarked. The horizontal lines of balconies have been omitted, while the advantages of balconies have been obtained for the tenants of some of the apartments by recesses on the face of the building at the level of the sixth floor. Of these two houses, however, the one on the Boulevard de Courcelles is very much the more interesting. Its architect has been very discreet in the use of his ornament. The façade has been admirably simplified, and its height has been emphasized less by two projections on the face of the façade than by two towers, which have been wrought into the body of the building. The projections, which up to the level of the sixth floor are comparatively flat, culminate in the towers, whose importance the architect has very cleverly emphasized by means of the recessed balconies. This whole arrangement is ingenious and striking, without being flamboyant, and its effect has a kind of charm unusual in Parisian apartment houses, at least a part of which is due to boxes of plants, with which the façade is garnished at three different levels.

Many of the newer apartment houses of Paris are, however, wholly lacking in the discretion characteristic of the two buildings on the Boulevard de Courcelles. In all contemporary French design there is a tendency towards the excessive elaboration and emphasis of ornamental detail; and this tendency finds many examples among the newer additions to the street architecture of Paris, some of which are as objectionable as the most extreme examples of American Beaux-artism. The Hôtel Madison on the Rue des Petits Champs is an instance of this kind. The architect has overlaid the face of the building with projections, which are badly composed, which are monstrous in size, and whose effect is both commonplace and vulgar. The two apartment houses at Nos. 38 and 40 Avenue de Trocadero are less commonplace, but they are hardly less vulgar. They are just as emphatically an example of bad street manners as the two old houses on Rue Châteaudun and Rue Babylone are examples of architectural dignity and courtesy. And they may be compared to those individuals in French society which are described by Frenchmen as "arrivists," and whose American analogues are sometimes described as "climbers."

On the other hand the building at No. 44 Rue de Bassano is a good example of the contemporary Parisian apartment house in its better phase. The architect has not sought to depart from what was good in the tradition of Parisian street architecture, but he has not been afraid to give his building distinction and individuality by many interesting variations from conventional practice. The triple horizontal division of the façade remains its most conspicuous feature, but there is also a triple verti-

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cal division which, although subordinate, gives the appearance of the façade a more than usual amount of self-possession. Furthermore, instead of connecting his intermediate stories with pilasters, as has been so frequently done in Paris, the architect has obtained the same effect with more propriety by flat projections framing each of the groups of windows; and this excellent device has rendered advisable an arched instead of a flat opening for the windows of the third story. It should be added that the architect has been able to preserve an altogether unusual amount of solid wall space, which in itself gives the building unusual dignity, while at the same time he has been laudably discreet in the use of ornament. This building is an excellent example of the modern Parisian apartment house at its best, and if the desire for originality and variety never tempted architects to depart any further than does this design from the Parisian convention, its effects would be distinctly beneficent.

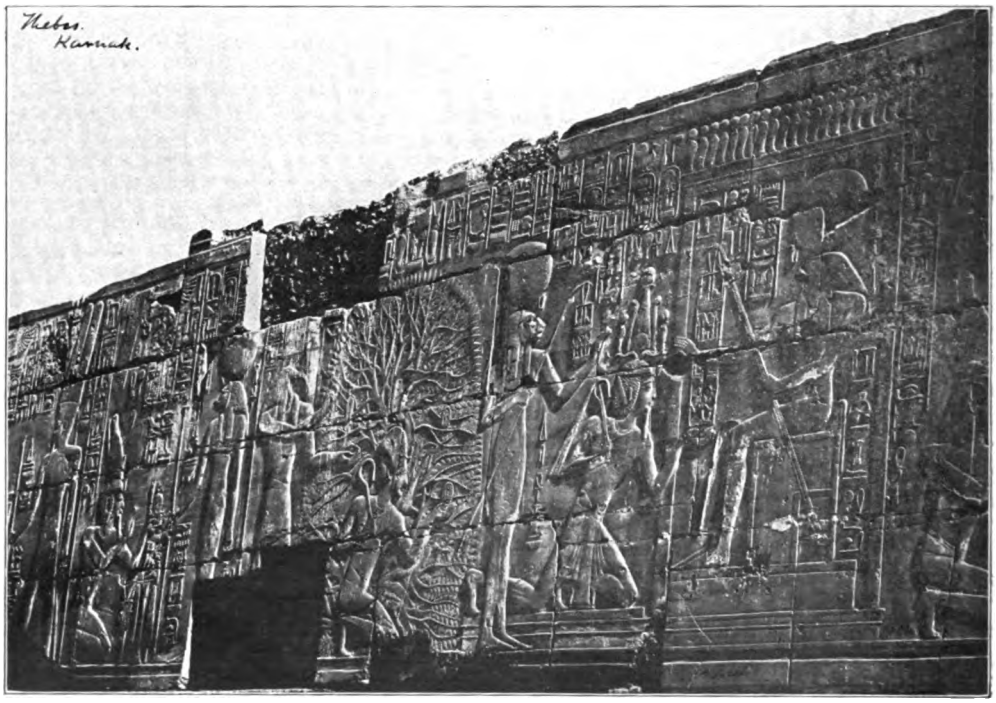
In conclusion, the readers' attention is invited to a couple of new business buildings, such as those which are being erected in the vicinity of the Place de l'Opéra. The design of the house on the Rue de la Paix is clever but somewhat commonplace, and does not contain any novel feature except the unnecessarily elaborate framing of three of the windows on the third floor. The building at No. 9 Rue du Port Mahon is not fairly represented by the photograph, because the street on which it is situated is extremely narrow, but, like the apartment house on the Rue de Bassano, it shows the new tendency of contemporary Parisian architecture at its best. And it is admirable for much the same reason as is the apartment house. It is individual; but its individuality is without a trace of self-assertive vulgarity; and it is impressive, not by reason of bloated, excessive ornamentation, but chiefly because of the simplicity of its treatment and the amount of plain and solid wall space which the architect has managed to secure.

This article began with the assertion that during the next generation the street architecture of Paris was likely to receive a somewhat different aspect and emphasis from that which Americans now associate with the city; and after the foregoing review of a few recent Parisian buildings, the reader will be better able to judge how far and in what sense this statement is true. Paris, of course, is not by way of becoming such an example of anarchical architectural individualism as is New York or Chicago, because buildings will always be limited to a certain height, and because, so far at least, the authority of the general French architectural tradition has not been impaired by insurrectionary novelties. Its appearance is not even in any danger of becoming as incoherently varied as is that of London, not only because of this architectural conservatism, but because of the almost universal use which Parisian architects still make of their Caen stone. In so far as the consistency of the architectural appearance of the Parisian streets is due to a general uniformity of height, to a general uniformity of material, and to the continued authority of an academic architectural tradition, there are no conclusive indications that this consistency is being impaired. On the other hand there is an obvious and general revolt against the local tradition, which made for continuity of design among the different houses on a block, and among the successive blocks, which make up the vista of a street. This revolt will in the course of time rob Parisian street architecture of some of its propriety and perhaps of some of its dignity. Its manners are by way of becoming less those of a social gathering and more those of a political meeting, subject, of course, like all continental political meetings, to a tolerably rigorous control on the part of the police. In spite of certain brilliant exceptions, the change has hitherto injured rather than improved the appearance of the city; and the writer, after many walks through the newer parts of Paris, was sometimes inclined to believe that Parisian street architecture was on the road to decadence. But one could hardly make such an assertion without many reservations. The ten-

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dency towards individuality and novelty of design which it is showing, is far from being a necessarily decadent tendency, and it can already be credited with a few unusually good buildings against the larger number of unusually bad ones, which must be placed on the other side of the account. Any final verdict upon the issue of current tendencies must be postponed until they have received a longer and more abundant expression.

A. C. David.



THE STORY OF OLD EGYPT.

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Great Buildings as Described by Great Writers

Edited by Albert C. Phelps, Assistant Professor of Architecture at Cornell University

In presenting these descriptions and appreciations for the consideration and, it is hoped, the enjoyment of the readers of the Architectural Record, the editor of the series wishes to define its purpose and limitations.

That there are in literature certain descriptions of the great monuments unapproachable in their sympathetic interpretation and beauty of style is generally acknowledged. For various reasons, among which may be mentioned lack of technical knowledge, inaccuracy of statement with reference to detail, disregard of general composition, narrowness of vision on the part of certain style enthusiasts, and dogmatic assertion, these literary descriptions have been generally discredited by practical architects.

It is believed, however, that many of the great writers have shown a poetic insight and sensitiveness to the spirit of the great masterpieces, which, coupled with facility of expression, have resulted in the production of works quite surpassing the more scientific and, so far as mere technique is concerned, more accurate descriptions of professional architects and archaeologists. The point of view of these literary men is often unique, and their criticisms, though unconventional, are spontaneous and most helpful in arriving at an appreciation of the triumphs and failures of the works discussed.

It is thought no apology is necessary for the extracts presented. Naturally there must be a difference of opinion regarding the authors and works selected, but in each case it has been the editor's earnest endeavor to choose writers who were temperamentally fitted to appreciate the monuments described, and who have given us works of real sentiment and literary merit.

It should be added that in this series there will be no attempt to give either complete technical descriptions or historical notes; such descriptions are well known to every student of architecture. The purpose of these extracts is, while avoiding gross error in technical or historical statement, to assist to an appreciation of the monuments rather than to an accumulation of facts.

The following account of a visit to Karnak by Bayard Taylor forms a part of a book of travels, "A Journey to Central Africa," published in 1857. Taylor's poetic temperament, keenness of perception and love of Oriental art specially fitted him to enjoy and impart to others much of the majesty, solemnity and mystery of Egyptian architecture. He sees things clearly, strikes the keynote of the essential elements of beauty and grandeur in these great monuments, and sets forth their impression upon the beholder, together with the true atmosphere of their surroundings.

I.

A Visit to the Great Temple of Amen at Karnak

And now we galloped forward, through a long procession of camels, donkeys and desert Arabs armed with spears, towards Karnak, the greatest ruin in the world, the crowning triumph of Egyptian power and Egyptian art. Except a broken stone here and there protruding through the soil, the plain is as desolate as if it had never been conscious of a human dwelling, and only on reaching the vicinity of the mud hamlet of Karnak can the traveler realize that he is at Thebes. Here the camel path drops into a broad excavated avenue, lined with fragments of sphinxes and shaded by starveling aca-

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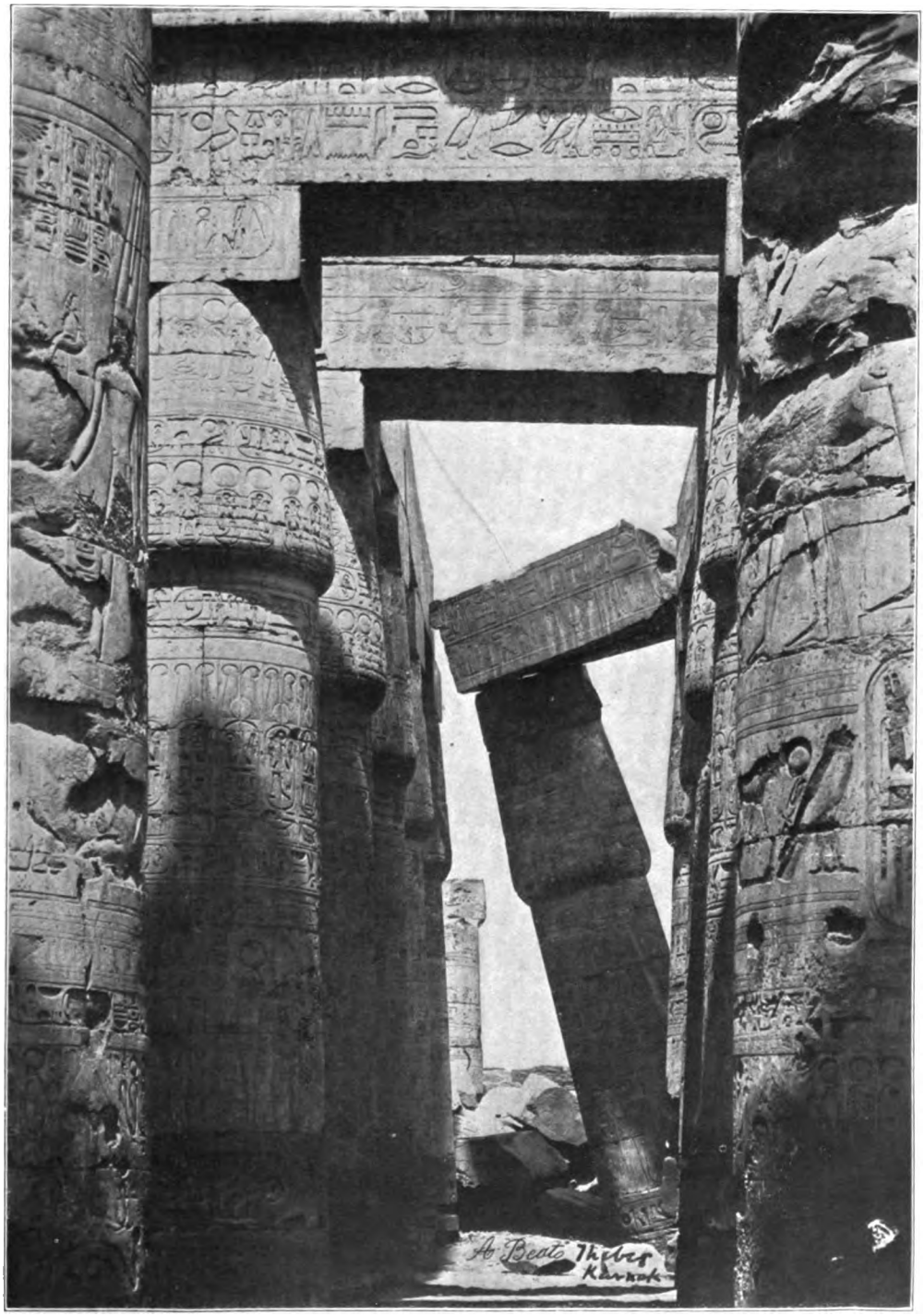
cias. As you advance the sphinxes are better preserved and remain seated on their pedestals, but they have all been decapitated. Though of colossal proportions, they are seated so close to each other that it must have required nearly two thousand to form the double row to Luxor. The avenue finally reaches a single pylon of majestic proportions, built by one of the Ptolemies, and covered with profuse hieroglyphics. Passing through this, the sphinxes lead you to another pylon, followed by a pillared court and a temple built by the later Ramesides. This, I thought, while my friend was measuring the girth of the pillars, is a good beginning for Karnak, but it is certainly much less than I expect. *"Taal min hennee!"* (come this way!) called the guide, as if reading my mind, and led me up the heaps of rubbish to the roof and pointed to the north.

Ah, there was Karnak! Had I been blind up to this time, or had the earth suddenly heaved out of her breast the remains of the glorious temple? From all parts of the plain of Thebes I had seen it in the distance—a huge propylon, a shattered portico and an obelisk, rising above the palms. Whence this wilderness of ruins, spreading so far as to seem a city rather than a temple—pylon after pylon, tumbling into enormous cubes of stone, long colonnades, supporting fragments of titantic roofs, obelisks of red granite and endless walls and avenues, branching out of isolated portals? Yet they had stood as silently amid the accumulated rubbish of nearly four thousand years, and the sunshine threw its yellow luster as serenely over the despoiled sanctuaries as if it had never been otherwise since the world began. Figures are of no use in describing a place like this; but since I must use them I may say that the length of the ruins before us, from west to east, was twelve hundred feet, and that the total circumference of Karnak, including its numerous pylae, or gateways, is a mile and a half.



"LONG COLONNADES SUPPORTING FRAGMENTS OF TITANIC ROOFS."

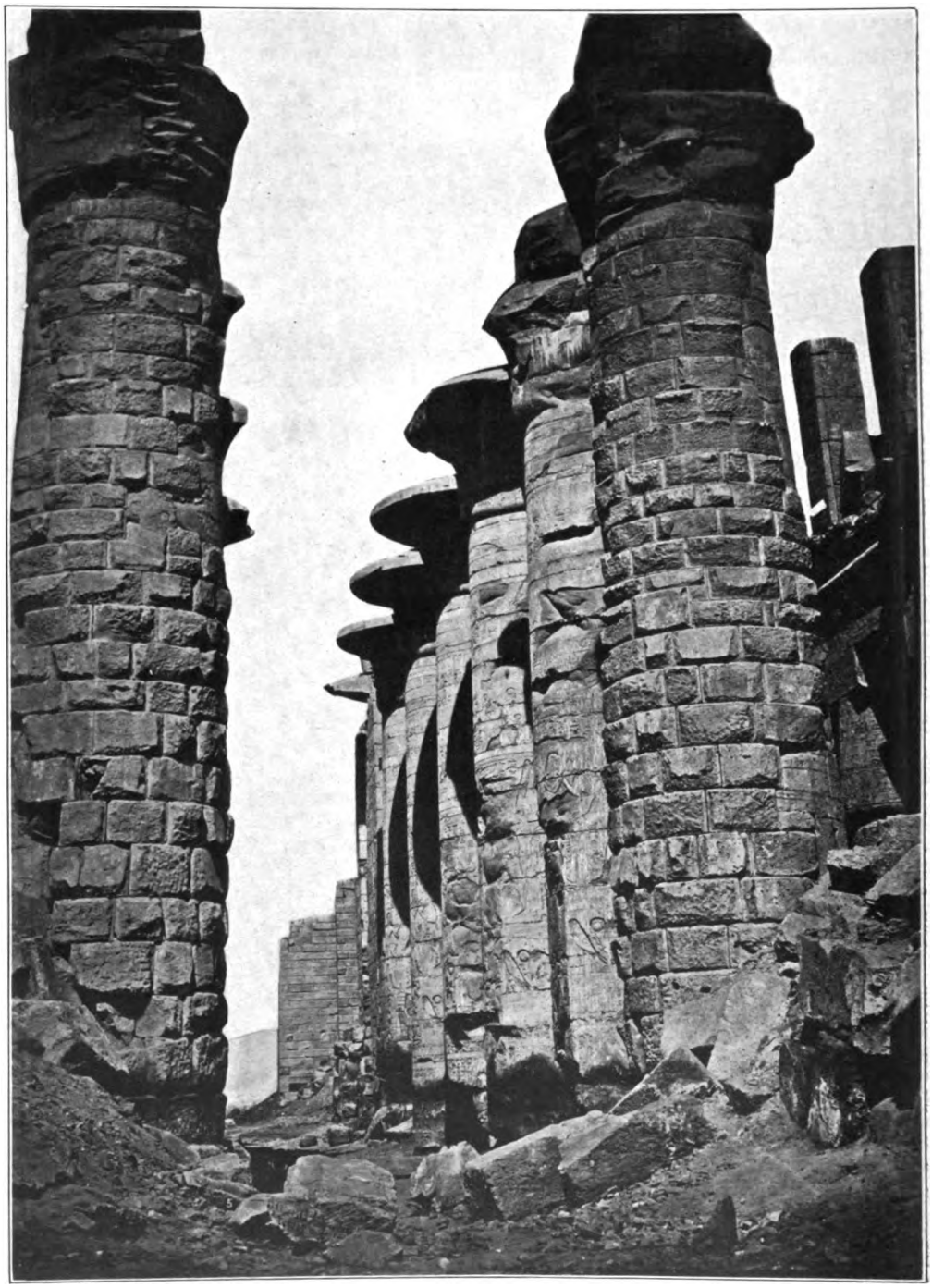
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"TWO HAVE BEEN HURLED FROM THEIR PLACES AND THROWN AGAINST THE NEIGHBORING ONES, WHERE THEY STILL LEAN, AS IF WEARY OF HOLDING UP THE ROOF OF MASSIVE SANDSTONE."

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"THE HALL OF UNUTTERABLE MAJESTY AND BEAUTY."

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We mounted and rode with fast-beating hearts to the western, or main, entrance, facing the Nile. The two towers of the propylon—pyramidial masses of solid stone—are three hundred and twenty-nine feet in length, and the one which is least ruined is nearly one hundred feet in height. On each side of the sculptured portal connecting them is a tablet left by the French army, recording the geographical position of the principal Egyptian temples. We passed through and entered an open court, more than three hundred feet square, with a corridor of immense pillars on each side, connecting it with the towers of a second pylon nearly as gigantic as the first. A colonnade of lofty shafts, leading through the center of the court, once united the two entrances, but they have all been hurled down and lay as they fell, in long lines of disjointed blocks, except one, which holds its solitary lotus-bell against the sky. Two mutilated colossi of red granite still guard the doorway, whose lintel-stones are forty feet in length. Climbing over the huge fragments which have fallen from above and almost blocked up the passage, we looked down into the grand hall of the temple.

I knew the dimensions of this hall beforehand; I knew the number and size of the pillars, but I was no more prepared for the reality than those will be who may read this account of it and afterward visit Karnak for themselves. It is the greatest good luck of travel that many things must be seen to be known. Nothing could have compensated for the loss of overwhelming confusion of awe, astonishment and delight which came upon me like a flood. I looked down an avenue of twelve pillars—six on each side—each of which was thirty-six feet in circumference and nearly eighty feet in height. Crushing as were these ponderous masses of sculptured stone, the spreading bell of the lotus blossoms which crowned them clothed them with an atmosphere of lightness and grace. In front, over the top of another pile of colossal blocks, two obelisks rose sharp and clear, with every emblem legible on their polished sides. On each side of the main aisle are seven other rows of columns—one hundred and twenty-two in all—each of which is about fifty feet high and twenty-seven in circumference. They have the Osiride form, without capitals, and do not range with the central shafts. In the efforts of the conquerors to overthrow them, two have been hurled from their places and thrown against the neighboring ones, where they still lean as if weary of holding up the roof of massive sandstone. I walked alone through this hall, trying to bear the weight of its unutterable majesty and beauty. That I had been so oppressed by Dendera seemed a weakness which I was resolved to conquer, and I finally succeeded in looking on Karnak with a calmness more commensurate with its sublime repose—but not by daylight.

My ride back to Luxor, toward evening, was the next best thing after Karnak. The little animal I rode had become excited by jumping over stones and sliding down sand-heaps. Our guide began to show his Bedouin blood by dashing at full gallop toward the pylons and reining in his horse at a bound; and, to conclude, I became infected with a lawless spirit that could not easily be laid. The guide's eyes sparkled when I proposed a race. We left my friend and the water-carriers, bounded across the avenue of sphinxes and took a smooth path leading toward the desert. My mare needed but a word and a jog of the iron stirrup. Away we flew, our animals stretching themselves for a long heat, crashing the dry dourra stalks, clearing the water ditches and scattering on all sides the Arab laborers we met. After a glorious gallop of two or three miles my antagonist was fairly distanced; but one race would not content him, so we had a second, and finally a third, on the beach of Luxor. The horses belonged to him, and it was a matter of indifference which was the swiftest; he raced merely for the delight of it, and so did I.

The same gallant mare was ready for me at night. It was precisely full moon, and I had determined on visiting Kar-

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nak again before leaving. There was no one but the guide and I; he armed with his long spear and I with my pistols in my belt. There was a wan haze in the air and a pale halo around the moon, on each side of which appeared two faint mock moons. It was a ghostly light, and the fresh north wind, coming up the Nile, rustled solemnly in the palm trees. We trotted silently to Karnak, and leaped our horses over the fragments until we reached the foot of the first obelisk. Here we dismounted and entered the grand hall of pillars. There was no sound in all the temple, and the guide, who seemed to comprehend my wish, moved behind me as softly as a shadow and spoke not a word. It needs this illumination to comprehend Karnak. The unsightly rubbish has disappeared; the rents in the roof are atoned for by the moonlight they admit; the fragments shivered from the lips of the mighty capitals are only the crumpled edges of the flower; a maze of shadows hides the desolation of the courts, but every pillar and obelisk, pylon and propylon is glorified by the moonlight. The soul of Karnak is soothed and tranquilized. Its halls look upon you no longer with an aspect of pain and humiliation. Every stone seems to say: "I am not fallen, for I have defied the ages. I am a part of the grandeur which has never seen its peer, and I shall endure forever, for the world has need of me."

I climbed to the roof and sat looking down into the hushed and awful colonnades till I was thoroughly penetrated with their august and sublime expression. I should probably have remained all night, an amateur colossus, with my hands on my knees, had not the silence been disturbed by two arrivals of romantic tourists—an Englishman and two Frenchmen. We exchanged salutations, and I mounted the restless mare again, touched her side with the stirrup, and sped back to Luxor. The guide galloped beside me, occasionally hurling his spear into the air and catching it as it fell, delighted with my readiness to indulge his desert whims. I found the captain and sailors all ready and my friend smoking his pipe on deck. In half an hour we had left Thebes.

Bayard Taylor.

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German City Planning

I.

German city planning in the first half of the nineteenth century, and well into the seventies, had regard principally to Vienna and Paris. These cities supplied two standard ideas: the development of a circumferential street and the cutting through of new streets on a great scale. In both cases Paris stood first; Vienna with its Ringstrasse followed the example of what in Paris had already been carried out under Colbert. The boulevards of Paris were regarded in the nineteenth century as the ideal streets of the cosmopolitan city—and they are that in a certain sense to-day.

With the Third Napoleon Paris entered upon the epoch of a wholesale cutting through of new streets in direct lines. Baron Haussmann began his powerful transforming activity: the renovation of the city from within outwards. Bold architects had planned similar work, even in the eighteenth century. But not until Haussmann's work did all of those aims become realized; thenceforward new plans were continually developing. Since then, the cutting through of new streets on a great scale has been an essential character of modern French cities. These have been laid out either in the heart of the city or directly through it. Examples that may be cited are those of the Rue de la République in Avignon, the Avenue Alsace-Lorraine in Toulouse, and in Lyons, the Rue de l'Hôtel de Ville, Rue de la République, and Rue President Carnot—streets which burrow through almost the entire old quarter of the city.

The artistic system, through which the new Paris offered compensation for so much that was destroyed, is that of the termination of streets by means of buildings of special importance; this system at first was slowly developed. Its realization by no means succeeded everywhere, and in many cases the ideas were also an inheritance from the eighteenth century. So it was with the Madeleine. The artistic service of Parisian street planning shows itself at its best in the Avenue de l'Opéra. This is 1,100 metres long, of a stately width, and its vistas are terminated by the Louvre and the Opera House. Indeed, a cold but distinguished work of art, a pompously genuine expression of the Third Empire. How much more cheery and less tedious are the old boulevards with their crooked lines of seldom very expensive buildings! The Romanticists very rightly pointed out that the most successful expressions of deliberate city planning stand far behind that which has become historical.

Also in other countries they began to improve crooked old city quarters by the cutting through of new streets. Celebrated are those of London, which almost completely transformed the heart of the old city. The boulevards that divide Brussels, those that have been cut through ancient Rome upon lines so violently antagonized—no German city has attacked old conditions in a way that anywhere near approaches these. The extension of the König Johannstrasse in Dresden, of the Kaiser Wilhelmstrasse in Berlin and Hamburg, of the Kaiserstrasse in Cologne, of the Grupen-Karmarschstrasse in Hanover, and of the Hohen Markt and Rotem Turmtor (by the High Market and the Red Tower Gate) in Vienna—to name only a few examples—in significance stand extraordinarily behind those magnificent transformations, both in general import as well as in regard to the individual city.

The German cities were in general more farseeing and hesitating. We have, fortunately, been spared such violent transformations as those of the Cathedral Piazza in Milan, the Piazza Vittorio Emanuele in Florence, and in Naples, etc. With us the cutting through of new streets was for the most part undertaken for double reasons: On account of traffic and for the sake of ad-

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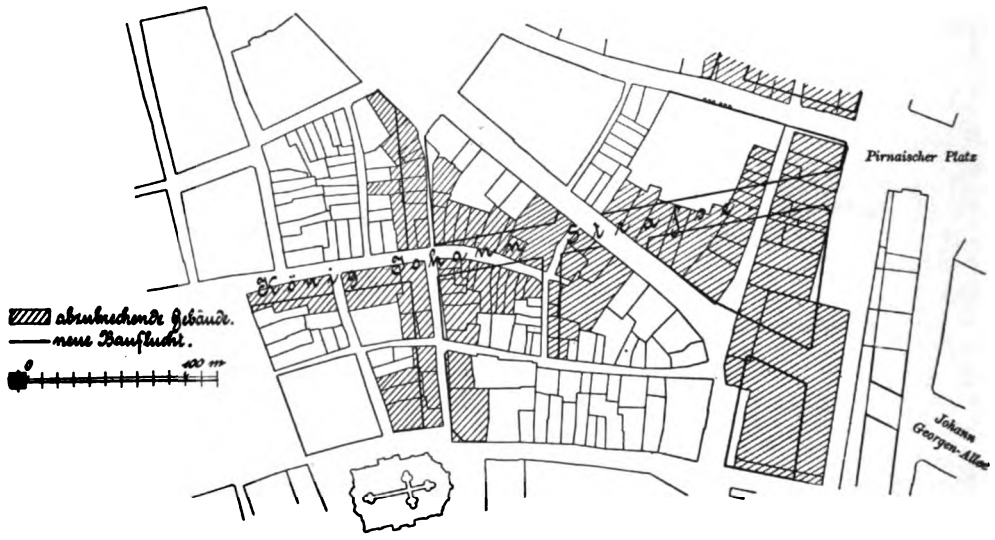


FIG. 1.

Dresden: Extension of the König Johannstrasse and of the Moritzstrasse from the Altmarkt to the Pirnaischen Platz, respectively to the Pirnaischen Platz and to the Johann Georgenstrasse.

The extension opens up the entrance to the Altmarkt from the westward (from the Pirnaischen Platz). The main connection was at once made; the line that crosses it at right angles between the Kreuzkirche and the Neumarkt is not yet carried out. In connection with the main traffic line, the extension of the Moritzstrasse and the Johann Georgen-Allee was effected.

mitting air and light in a too congested and unwholesome city quarter. It may be lamented that the picturesque Judengasse in Frankfort-on-the-Main was destroyed, but hardly any rational person could now be found who finally would not approve of what was done. The destruction of the Gängeviertel in Hamburg, of the street An der Mauer in Berlin, of the Badergasse in Dresden, will hardly be regretted by anybody. The thing here was to abolish with a firm hand evil conditions that had become historical. The only error was that the changes made were not decisive enough to give requisite depths for lots bordering on the new streets. In general it can be said that the best results were reached in those cases where, for the newly constructed street, an entirely new direction was found instead of making it merely a widening of the old street. For here, in the latter instance, while width was gained in the street, court-space was sacrificed to make up for it. Hence the gain in air and light was only apparent.

The cutting through of the König Johannstrasse in Dresden (Fig. 1) has had much fault found with it. For instance, the demolition of the beautiful Schönburgschen Palace on the Moritzstrasse could have been avoided, and the street itself perhaps given a more effective character if it had been decided to turn an angle strongly northwards at a point where it cuts across the Moritzstrasse. But at the time when this was planned, in 1885, we were altogether too much under the influence of the theory of the unconditional superiority of the rectilinear "avenue" to be able to carry out a project of that sort.

This theory, which goes back to Paris, may now be regarded as overcome. Monstrous expenditures are no longer sacrificed to the passion to lay with iron hand, through the midst of old cities, a great straight line that is contradictory to their essential character. In this respect Darmstadt offers a very noteworthy example. In order to create the improvement represented in Figure 2 a

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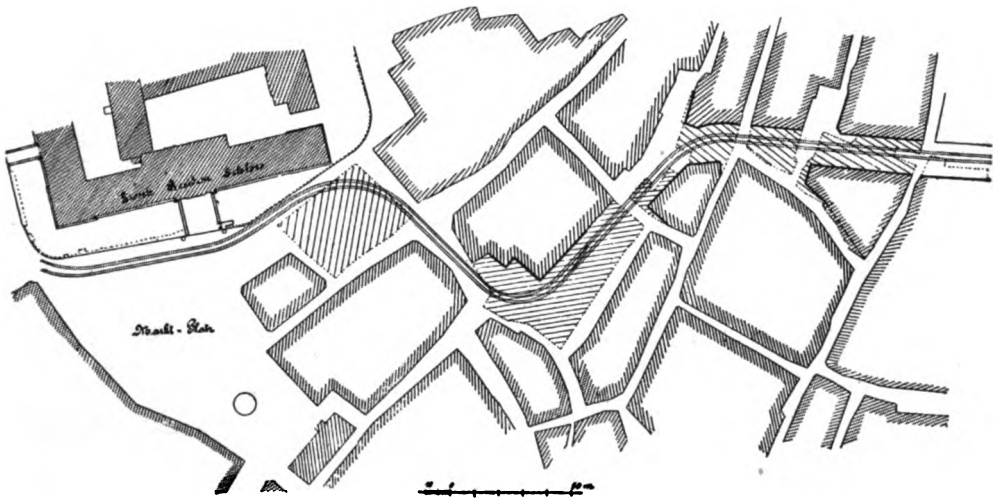


FIG. 2.

Darmstadt: Extension from the Residential Palace and the Market Place to the Blumenstrasse. Noteworthy is the decisiveness with which entire blocks of houses were demolished. On the other side, however, is to be remarked the careful attention given to the preservation of existing conditions so far as possible. The object of carrying out the new line is not only the creation of an easy traffic route, but the best possible opening-up of the crooked city quarter. Note the open spaces that were created. No weight is given to parallelism of street lines.

by no means small number of old houses had to be demolished. An almost entirely new route was selected, and, indeed, in very strong curves; thereby a street was created that in one place narrowed itself to a breadth of 9 metres, but in compensation for that circumstance it is accompanied by two sightly open spaces. They were not afraid of the roundabout direction of the curve (340 metres in street length, instead of 300 metres by an air line) in order to open up satisfactorily the entire city quarter by means of the improvement.

A similar tendency is shown by the improvements in Halle (Figs. 3 and 4). The attack upon old conditions is more decisive, parallelism in the street lines was striven for—a modern system which eliminates entirely from the city quarter the character of the ancient order. The plan is feasible only after the demolition of nearly all the small houses, with other and far-reaching transformations of the individual property lines. Had they avoided straight lines to a still greater extent many a picturesque scene could have been preserved. For instance, as Figure 3 shows, only one of the new streets, that which leads from the Market to Gutjahrstrasse, would need to have received a more intense traffic.

As a third example, the cutting through of a new street through the Scheunenviertel in Berlin (Fig. 5) may be cited. The infelicitous shapes which the straight lines resulted in here are to be noted: The numerous acute corners difficult to be built upon, the ugly open spaces at the rectangular points, the disregard of the old property lines which so often revenges itself in the shape of extensive litigation. Great sacrifices were here offered to the rectilinear system.

Here may be mentioned also, the opening up of important edifices, in particular, great churches, to a free view. In the cases of the Cathedral of Cologne, the Cathedral and the new Minster at Würzburg, St. Stephen's Church in Vienna, the Minster in Ulm, the Cathedral of Metz, and in various other places, more or less magnificent open spaces have been created, principally for motives of embellishment, but especially for the sake of extricating the edifices

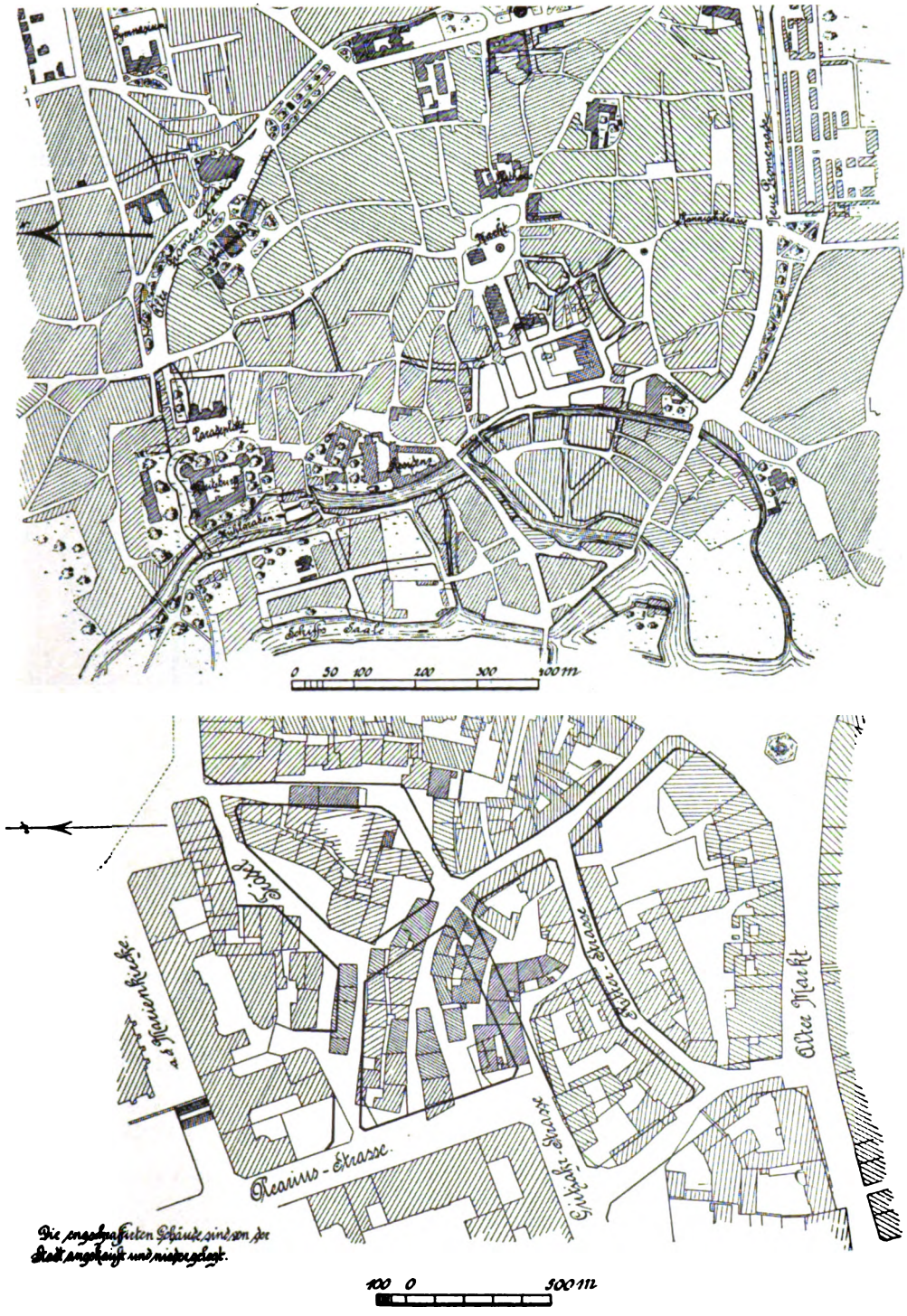
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in question from a constricted environment, and to enhance their effectiveness.

The intention is certainly praiseworthy, but the results do not always warrant the undertaking. It is just by means of the opening-up of monumental buildings to free view—a process which only too often leads to the naked exposure of the structure in question—that we are led to appreciate the artistic value of the nestling together of buildings; that is, in particular, in furnishing a standard for estimating the size of the subordinate structures. The human eye needs an object whereby comparisons may be made in order to value measurements. The effect of St. Peter's in Rome, often dwelt upon—that is, that the building actually looks *smaller* than it really is—has its explanation in the fact that all the surrounding structures and all the details were designed in relation to the whole. The surprising effectiveness of many medieval buildings consists in the circumstance that details constructed in a relatively small manner stand in an apparently false relation to the size of the entire project. Now a house, or, more properly, the story of a building, is a standard of measurement with which the spectator is familiar. Before the opening up of the cathedral to free view it was surrounded by houses, and, although these were four or five stories high, they were overtowered in tenfold measure. By this means the greatness of the cathedral was apparent to the eye. But now it stands either released from that environment or associated with new buildings which, from motives of "dignity," have been designed to be as stately as possible, and therefore furnish large units for comparison. By these means the cathedral is correspondingly dwarfed. The "monumental" environment diminishes its effectiveness; the old-time booths and little houses huddled at its base enhanced it. For the sake of the cathedral, hundreds of thousands in money have been expended; in return, not even the thanks of those informed in art have been earned. The laity, however, stands doubtfully shaking its head. So much has been done to it, and nevertheless the cathedral was more beautiful before. And the artists, who once so gladly included it in their pictures, are now gone to other parts, never to return. Most unfortunate, however, is the effect of the buildings placed upon the free, open space. The mediæval architects who created that cathedral certainly knew what was good for the appearance of their work. They *never* built in the middle of a place; they always added to it smaller structures (cloisters, arcades, chapels, etc.); they most always took pains either to have city dwellings arranged close to their work, or took no trouble to prevent it. If only there was left sufficiently free room from which one could see the building in its essential parts at a sufficiently remote point of view. Such an opening up of a building is shown by Figure 6. The Saint Nicholas Church (Nikolaikirche) at Stralsund was ringed about by small buildings, which in themselves were artistically worthless. These have been entirely removed, and in their place gardens have been laid out. It is very questionable whether this radical procedure has been felicitous for the building for whose sake it was undertaken. It would, perhaps, have been better to have permitted single buildings to remain standing, or in their places to have erected new ones of an architecture small in scale and especially designed to the end that the main building would apear to "grow up" above it. As a more fortunate opening up of a monumental building, the Stadtkirche (City Church) in Darmstadt (Figs. 7 and 9) may be cited. The question here was to give air and space about the building. But they did not go to work to isolate it; instead of that, with genuinely artistic regard, they took pains to keep it in relation with its environment, and to bring this into a picturesque relation to the church. By this means a sufficient open space was gained for the protection of the churchgoers from the street traffic.

The necessity for street widening is mostly served by a correction of the streets through alteration in the "lines of flight." A red line may easily be drawn upon the city plan, and the approval of this line as the future "line of

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FIGS. 3 AND 4.

Halle-on-the-Saale: The old city quarter between "Markt" and "alter Markt" is newly laid out, unfortunately not without a prosaic modification of the city scene. Noteworthy is the extension of the Promenade, through the Ringstrasse leading to the Moritzburg, thus completing the girdle about the city. The mill canal (Mühlgraben) is deep lying at this point; the Burg and the Residential Palace stands high, giving a site that encourages interesting solutions of the problem.

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flight" is not so difficult to achieve, since in the next moment its effect upon the individual ground properties does not make itself perceptible. The city authorities know that the first steps to such corrections are the most agreeable. When the time comes to prohibit alterations in old houses, to forbid the ugly protruding old gabled walls to back in beside new buildings, and, at last, in order to do away with the old evil conditions, to expropriate the land where the buildings have not yet been moved back—not until then do all the evils of hasty planning show themselves. At all events, from the very first, care should be had to obtain not only a correct configuration of the street space, but also a proper utilization of the newly shaped lots.

New plans for entire old city quarters have been undertaken in which numerous old streets have received correction. So was it in Vienna, in Dresden. This is a very dangerous undertaking. The broadness of a street attracts traffic. If the old city quarter has narrow streets the traffic habituates itself to lines of movement which lead around the midst of the city. A careful administration encourages these ways, and relieves the midst of the city; but the widening of the streets burdens it, for they compel new structures to be erected in the heart of the city, and thereby prevent the diffusion of urban life over greater areas. Berlin could not have developed itself if traffic had been compelled to keep to the neighborhood of the Rathaus (City Hall). And Vienna would have been able to develop itself much better if the Ringquarter had not been made so much a special showplace as an expansion of the old city. This may best be observed in the Kärntner Ring and the Schotten Ring.

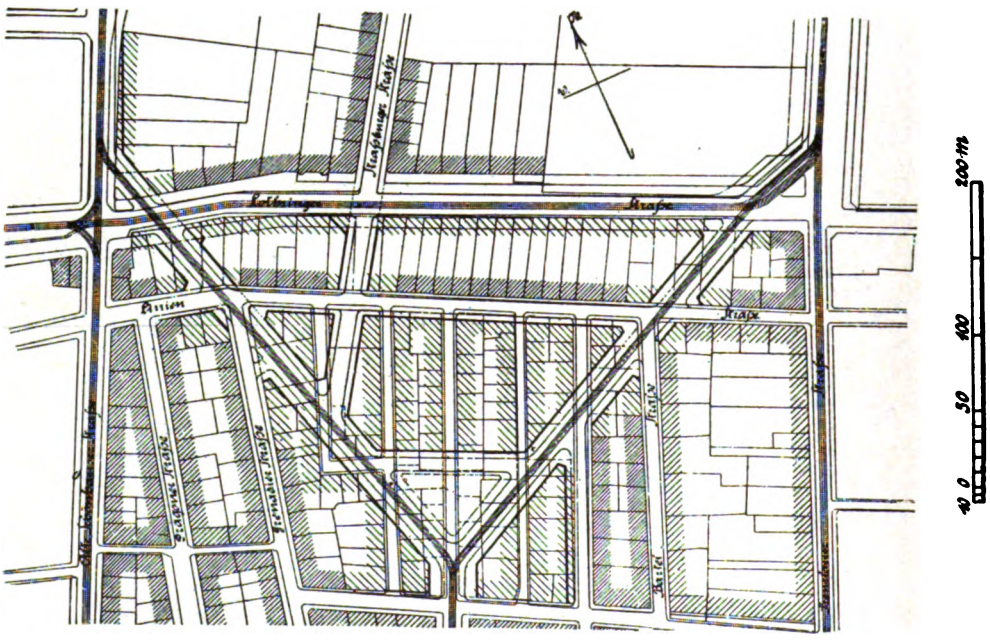


FIG. 5.

Berlin: An extension of the Kaiser Wilhelmstrasse and the Strassburger and Prenzlauer Strasse in the Scheunenviertel.

Street reformation often destroys much more than it serves. It should, therefore, be carried out with the greatest foresight. The idea that for a handsome street rectilinear and parallel margins are a requisite should never more be the standard. Some vigorous words of Mayor Adickes, of Frankfort, against

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the wish of several members of the City Council to reform the Trierische Strasse in that city in rectilinear fashion may here be cited: "The entire old city, admired by all friends of art, would be ruined should we set to work to revise it in rectilinear fashion," he said in 1898. "Such a procedure would be nothing less than barbarous!" In many another city the local authorities have not yet advanced to that stage of knowledge.

Desires for the preservation of ancient city scenes are increasing. The growing love for what has become historical draws streams of tourists to picturesque old cities. The new buildings attract few strangers; the old cities invite them. Our modern hosts of pilgrims turn their steps toward Heidelberg, Rothenburg, Nuremberg, Hildesheim; not to the rapidly growing new cities. Hence, when we destroy the old quarters of cities it is a transgression against self-interest, as well as against history and against good taste.

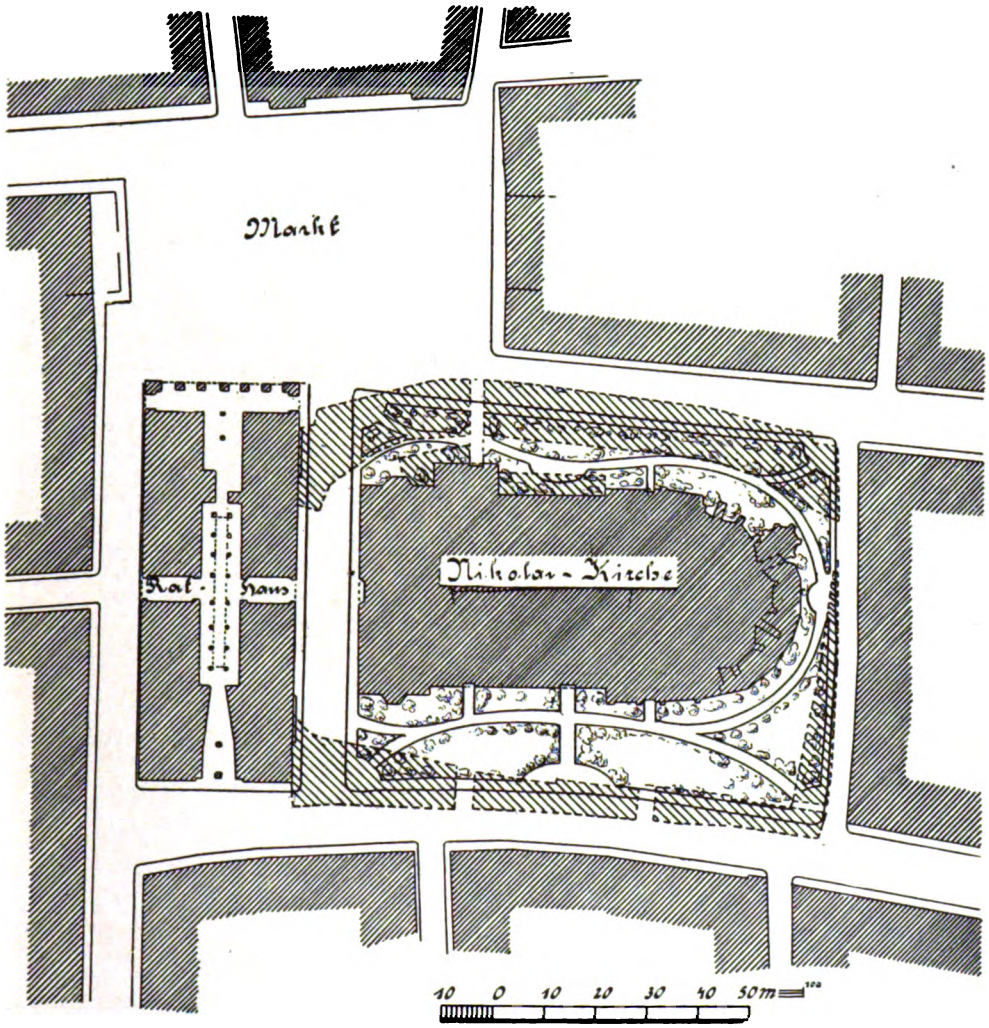


FIG. 6.
Stralsund: Opening up of St. Nicholas Church to a free view.

The excuse which is made by friends

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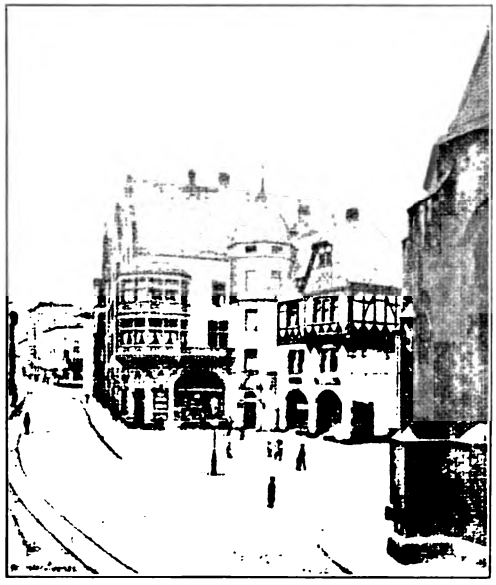


Fig. 8.

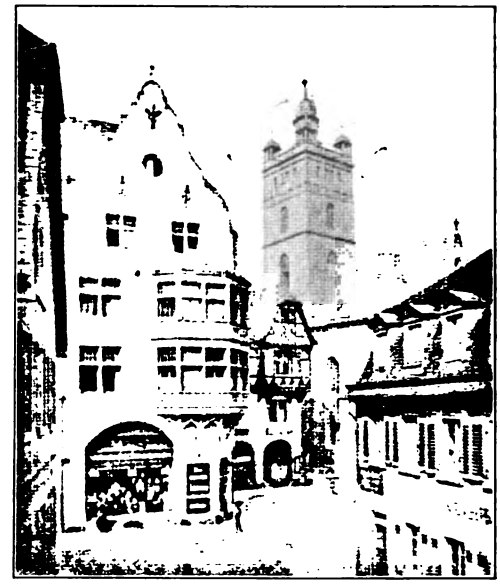


Fig. 9.

FIGS. 7, 8, 9.

Darmstadt: Opening up of the city church (Stadtkirche). It is particularly interesting to note how, before the entrance, quiet and traffic-free open spaces have been developed for the church-goers, so that they may here come together before and after the service. These offer interesting and picturesque prospects; the church, in itself not of great significance, is given an effective prominence.



Fig. 7.

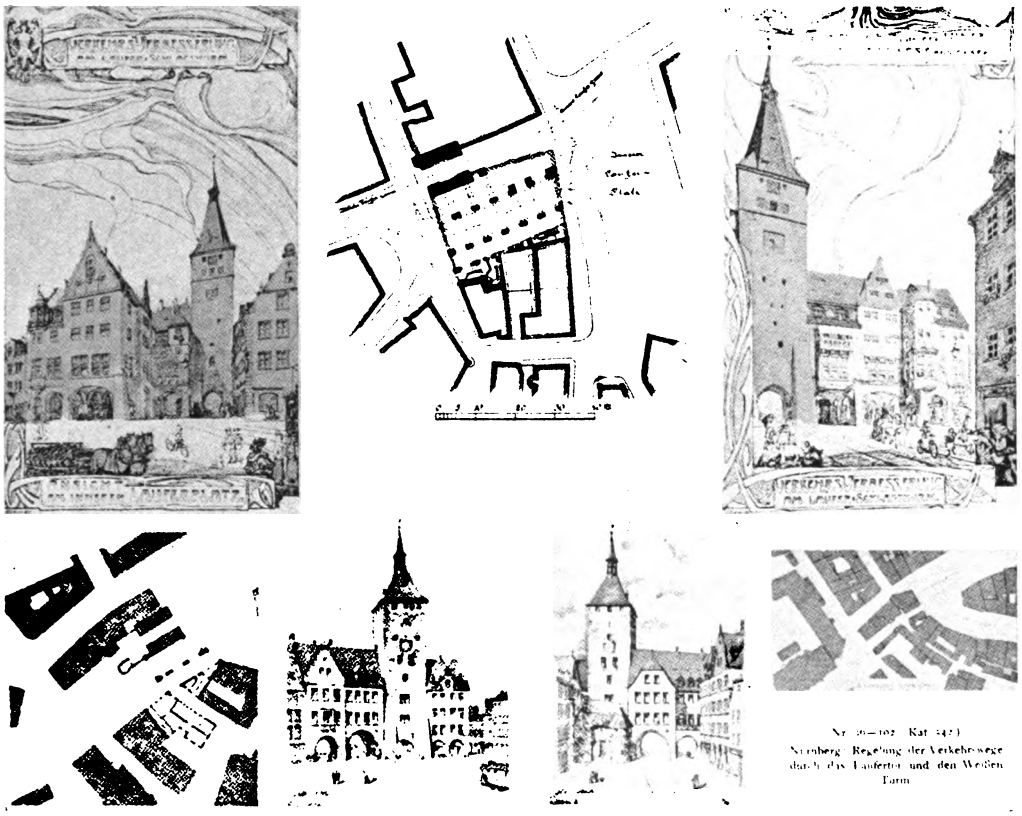
of such street reformations is mostly one of doubt as to the value of the old buildings: first, the practical value; then, also, the esthetic. When the owner of an old house has the intention to build upon a valuable lot a new building adapted to his purposes that is something difficult to hinder. The proposed reformation, however, incites him to such procedure, and for that there is seldom a correspondingly strong incentive. Who assists the constituted authority with advice as to whether a certain building is worth preserving on esthetic grounds? The answer can calmly be given: this may not come from the residents of the city itself. These almost always underestimate the value of picturesque parts of their city, just as the peasant is not sensitive to the landscape charm of the region in which he dwells. Persons capable of judgment must be sought for in other cities, for their vision is clear. And, above all, one thing should be borne in mind: Something new can be made any day, but it requires hundreds of years to produce something old! Therefore the old, even when it is inconspicuous, has more distinction than

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the new, notwithstanding that the latter may be ever so splendid. And, then, although for hundreds of years people have had the good sense to preserve an ancient structure, the folly of a moment is sufficient to destroy it.

Especially worthy of attention is the growing attention which is given, for example, to the demolition of the gates of old fortifications. During the first half of the nineteenth century innumerable were those sacrificed to hatred of the "dismal" Middle Ages. With the romantic period they began to preserve these where traffic considerations did not demand their destruction. Still "traffic" was a very severe and remorseless master. Many an old city robbed itself of its most beautiful features to serve the conceit of an apparent necessity.

Old gates were left standing free. So it was with the Holstentor in Lübeck, so with the gates of Cologne, the Burgtor in Vienna, the Berliner gate in Stettin, and many others. In these cases the gate was deprived of its intrinsic purpose; therewith its effectiveness was injured, for it was just the carrying of traffic through the narrow arch that was the most characteristic factor in the entire motive. Thereto comes the value of the gateway tower in the street vista, which thus materially gains in picturesque effect. Hence it was a cause for rejoicing in Dresden when the St. George gate (Georgentor) was preserved, and therewith was richly improved in its relations to traffic. In a like sense are the transformations of the Weissen Turm (Figs. 10 and 12) and



FIGS. 10 TO 16.

Nuremberg: Revision of the traffic ways through the Laufertor and the Weissen Turm (White Tower).

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Laufertor (Figs. 15 and 16) in Nürnberg to be regarded.

The second great event in the city planning of the nineteenth century was the demolition of the walls at Vienna and the competition of 1858 for the planning of the site in a half-circle around the old city. For this the designing of a monumental Ringstrasse, or circumferential way, was demanded. This was the first opportunity for German city planning to solve a complicated problem. For in Vienna it concerned not only the convenient subdivision of the territory for building purposes, but also the questions of traffic and of artistic adornment. At that time Vienna was undoubtedly the foremost German city and the one richest in traffic; the task was to relate to these circumstances numerous buildings of pre-eminent artistic value.

Unfortunately, the results of the planning did not entirely correspond to the artistic merits of the competition. The building authorities worked up a fourth plan upon the basis of the three-prize plans; this, as a matter of fact, was no improvement. For instance, numerous ideas of the particular plan which was most Viennalike in character (by Van der Nüll and Siccardsburg) were eliminated; these included a partial preservation of the old fortifications, which thus would have woven picturesque effects into the city scene. The precedent of the inner boulevard of Paris affected Vienna too powerfully. Hence it did not result in a really artistic placing of the many monumental buildings erected on the site of the fortifications. Very significant results were achieved, but much more significant might have been achieved.

Since nearly all German cities were surrounded by fortified walls well into the nineteenth century, similar circumstances repeat themselves nearly everywhere. The cities which also remained fortresses until after the Napoleonic wars—in particular those whose surrounding walls and glacis were still further extended and strengthened after these wars, and which thus were late in the utilization of the fortification sites for municipal purposes—are relatively more fortunate in what was done than those which lost their walls earlier. For in the first half of the nineteenth century planning on such a grand scale was seldom thought of, as towards the end of the century it became possible to carry out in Cologne, Strassburg, Mainz, Erfurt, Magdeburg, Würzburg and other cities. In these instances the old city was surrounded by a belt so broad that it was possible for the city planner to design and create with almost a free field. Unfortunately, this often occurred in such a way that not much was left over from the historical conformation of the site.

In the case of nearly all cities a ring, more or less closed in on all sides, for the most part with promenade ways, came into being. Such an instance is to be seen, for example, in Göttingen (Fig. 18), which, through the preservation of the ancient walls, was converted into a richly diversified pleasureway. The desirable accompaniment of such a way by traffic streets, such as in the case of Vienna bordered by the Ringstrasse, is here, to be sure, not entirely attained. In Halle (Fig. 3) it was not feared to make decisive attacks upon the internal circumstances in order to bring the ring to a conclusion on the north and west sides of the old city. Here not inconsiderable differences of level in site presented difficulties in the way of a facile carrying out of what was planned.

For the most part, however, in the middle of the nineteenth century, the street plan for the ring about the old cities lay already determined. With the sudden and strong growth of the cities since the years of the sixties and seventies the development of the rings and the adjacent outlying quarters was for the most part neglected. Development began with the laying out of new building districts in the open country, or, at least, in a region where few hindrances to the plan were presented. It seldom happened that far-sighted men were enable to accomplish what was really great, and this occurred for the most part only in the royal cities.

The leading city planners of that time were the building companies, who, in

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the speculative era, developed the new districts, which grew up out in the open country like mushrooms out of the ground. They planned, to be sure, with regard to their returns, though not without greatness and far-sightedness. Claims worth regarding are to be found, above all, in the plans of the Berlin quarter Deutsch-Wilmersdorf, and that instituted in common for Friedenau by

In most instances an axis is created; indeed, in the Berlin examples this in both cases was strongly laid in a north-south direction, regardless of the fact that the central point of Berlin lay in the northeast. About this axis is grouped a succession of street lines and open spaces which on paper present a "handsome plan-picture." This is accomplished by means of the greatest

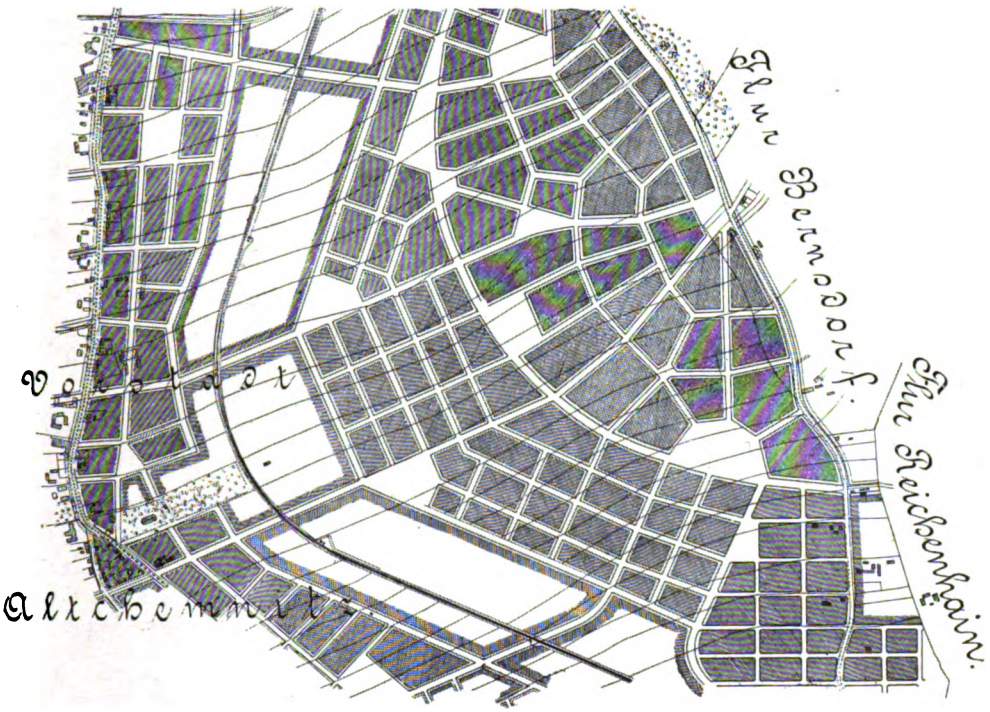


FIG. 17—CHEMNITZ—THE PLANNING OF A CITY QUARTER IN THE OPEN COUNTRY.

Example of an older manner in planning. Note how easy it might have been to lay out the streets in accordance with property boundaries and thereby achieve a simple distribution of the site, instead of the thoroughly unpractical properties that now result everywhere. These, therefore, will make readjustments necessary. It may further be noted that in the entire great territory there is no appropriate open space adapted to a monumental building, and that no interesting development of open spaces is to be found. Many open spaces appear to be fragments of land that were left over in working up the plan.

several building companies. Both of these manifest the formalistic, academic motives of the work of that time. Similar formal plans were developed in great number. The plans of the southerly city quarter of Hanover, and of the district between the university and orangerie in Straussburg, may be mentioned as examples that declare themselves with special clarity.

possible perfection in the symmetry of both sides of the axis. The plan thus appeared to be a thing sufficient to itself. The lateral connections were but slightly cultivated; little was thought of any through traffic outside of the axis. The division of the city was so worked up as to equalize to the greatest possible extent the lots on the side streets.

This system, in the 'sixties and 'seven-

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ties, was universally hailed as an artistic advance over the older checkerboard planning—such, for instance, as in northern Munich, between Ludwigstrasse and Schleissheimerstrasse, as in the English, American and Plauensche quarters in Dresden, in the Feuersee quarter in Stuttgart, in the outlying districts of Leipsic, that have grown up since about 1850, in the Alster quarter in Hamburg, and in so many other cities in wearisome monotony.

The municipal exhibition at Dresden showed such plans only in isolated fashion; for the most part these had to be incorporated in later work from plans of a former period. Typical, for example, is the partial plan of Chemnitz, represented in Figure 17: It is laid out upon a site where the ground rises towards Flur Bernsdorf. A somewhat horizontally curved street divides an extensive region which still consists of agricultural properties. The city planner had



FIG. 18.
Göttingen: The development of the "ring" about the city.

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an entirely free hand. But he did not even attempt to avoid the difficulties presented by an unpractical cutting-up of the individual properties. Extensive dismemberments will become necessary in order to allow sharp angles in the separate properties to be better shaped for the sake of utilizing left-over fragments of land now unfit for building purposes. And all this for the sake of achieving in the organization of the plan a certain regularity which amounts to nothing less the faults of this checkerboard system. It proved itself inadapted to the control of diversified traffic. If the streets leading in one direction led to the traffic-centre, the others were left almost destitute of traffic. The necessity of crossing the district in diagonal directions could be met only by taking the most exasperating zigzag lines. The more complicated did traffic become, so much the more repugnantly did the stiffness of the plan system manifest itself.

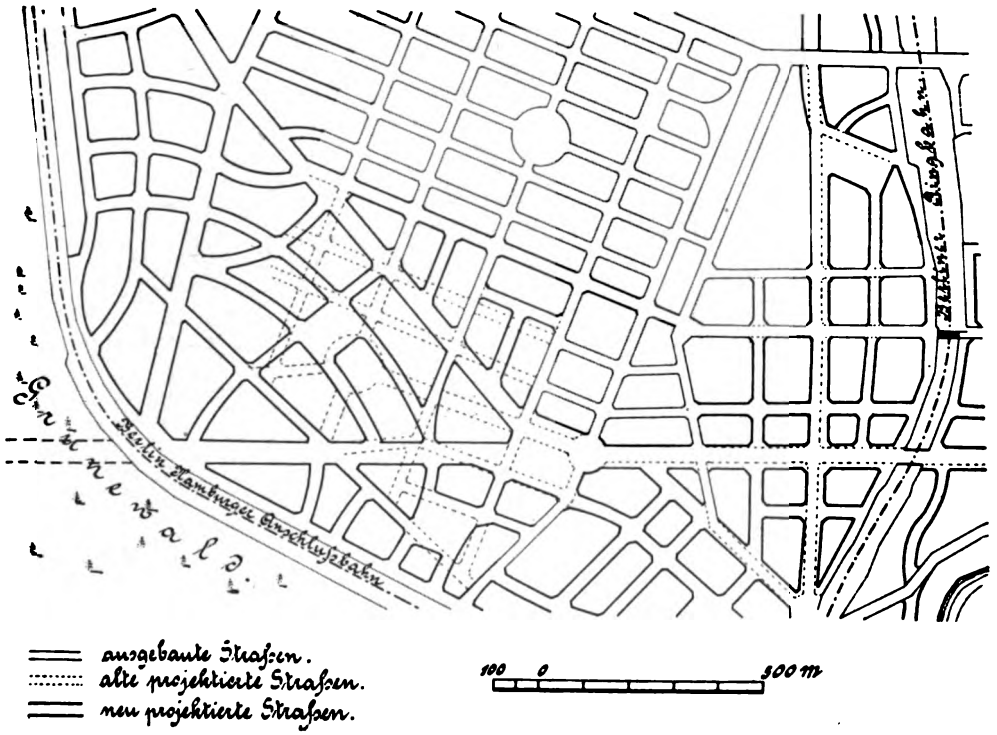


FIG. 19.

Charlottenburg: The revision of a city plan through the introduction of great through traffic-lines and a sequestrated residential quarter free of traffic. Note the endeavor to develop direct traffic routes by means of diagonals, and to mitigate somewhat the hopeless monotony of the old planning by the introduction of curves, etc.

than tediousness. In Charlottenburg (Fig. 19) the plan of regular character made decades before for the quarter that lies beyond the Ringbahn (Belt Railway) has been replanned in the portions not yet built upon, in order to introduce new lines for through traffic, together with some diversity.

Made wiser by experience, city planners began in the 'seventies to recognize

Corresponding objections on the score of beauty arose. Antagonism to the unbearable tediousness of the systematically laid out cities gained in force. The words of Moltke, in which he celebrated the quaint ramifications of Vienna in contrast to the regularity of Berlin, became celebrated. It was in the same utterance that he further attributed inferior patriotism to the rectilinear cities

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of France than to those with crooked streets. No less quoted are the words of the great humorist, Oberländer, who compared the regular cities with the structure of the lower animals, and the old cities with the forms of richly organized beings permeated with intelligence. New systems began to be sought after without much success in finding something better; hence, salvation was again sought in the blending of various systems, in particular that of the star (round-point) with the checkerboard. Thus there arose further city plans of the "handsome plan-picture" type. Up to to-day these are still in favor. A specially significant example is the new planning of the Leipziger quarter in Dresden.

A fundamental condition for such planning is regular topography. This was frequently overlooked. Thus the Dresden suburb, Plauen, developed a "handsome plan-picture" for the region about the Bismarck Tower, erected upon a height, but with the transfer of the geometric plan-lines to the ground itself fairly horrible discordant conditions showed themselves. Nevertheless, the plan was carried out. The streets have grades as high as 10%. In winter, with glare ice, they are hardly passable. But since the plan has been authoritatively adopted, there is no power to reject it.

The planning of the "handsome picture" led to peculiarly involved street relations. One might almost believe that considerations of arabesque ornament had influenced the city planner. He endeavored to bring together many lines on one spot, to create crossing points through which the lace-work of streets was artistically worked up. The objections on the score of traffic-technique that are to be made to this procedure will be elsewhere enlarged upon. But at the time when academic architecture was predominant, these objections could not make this sufficiently felt.

Cornelius Gurlitt.

Translation by *Sylvester Baxter.*

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The

METROPOLITAN CLUB

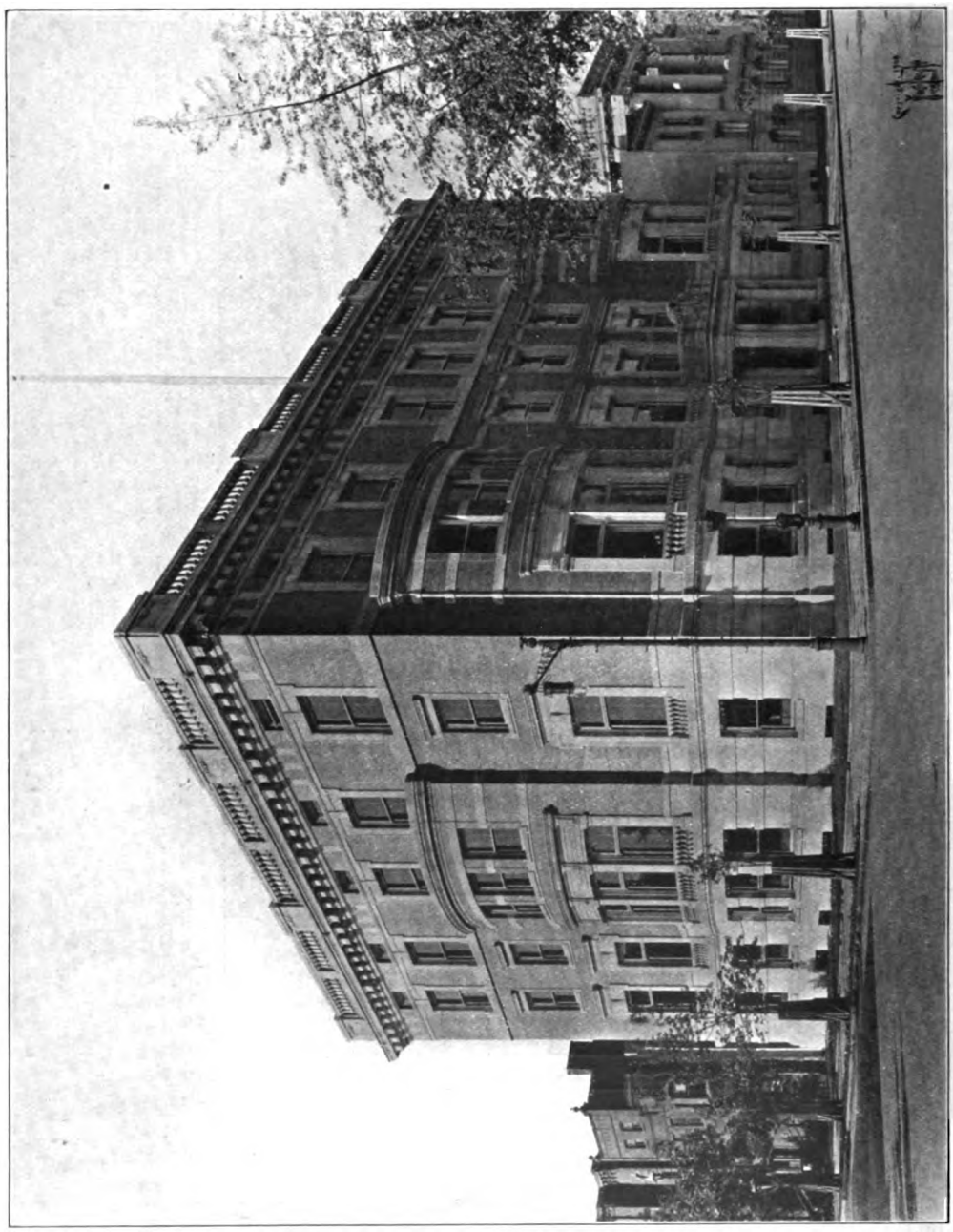
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Architects

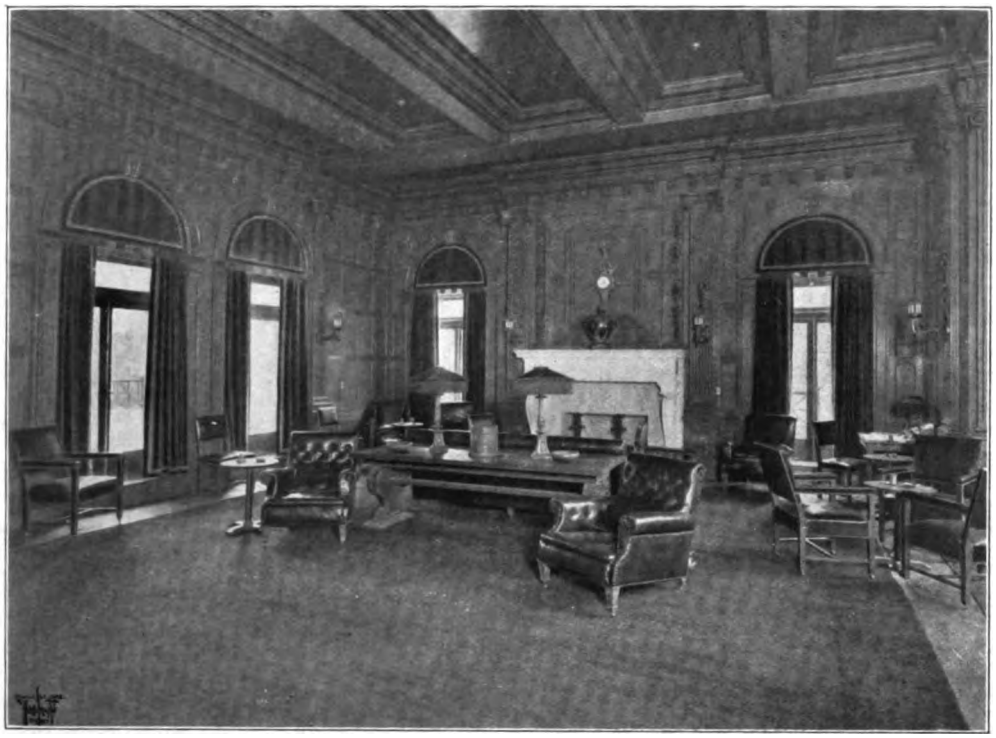
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THE METROPOLITAN CLUB. Heins & La Farge, Architects.
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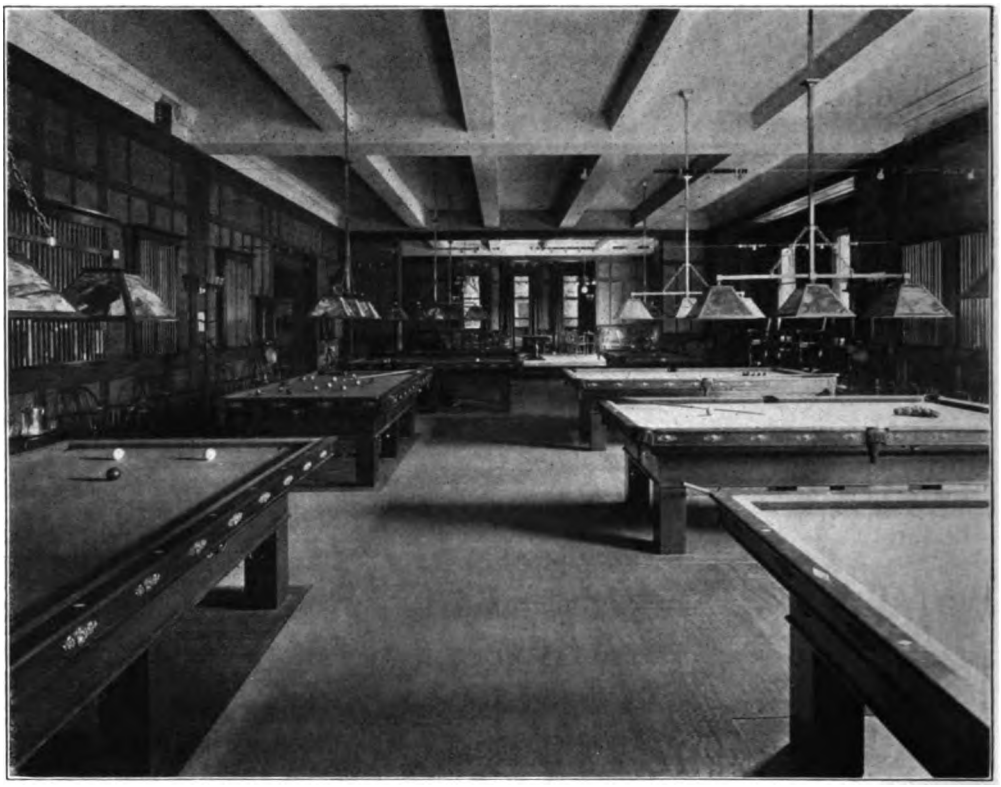


"LARS ANDERSON ROOM."



LOUNGING ROOMS—THE METROPOLITAN CLUB.
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BILLIARD ROOM.



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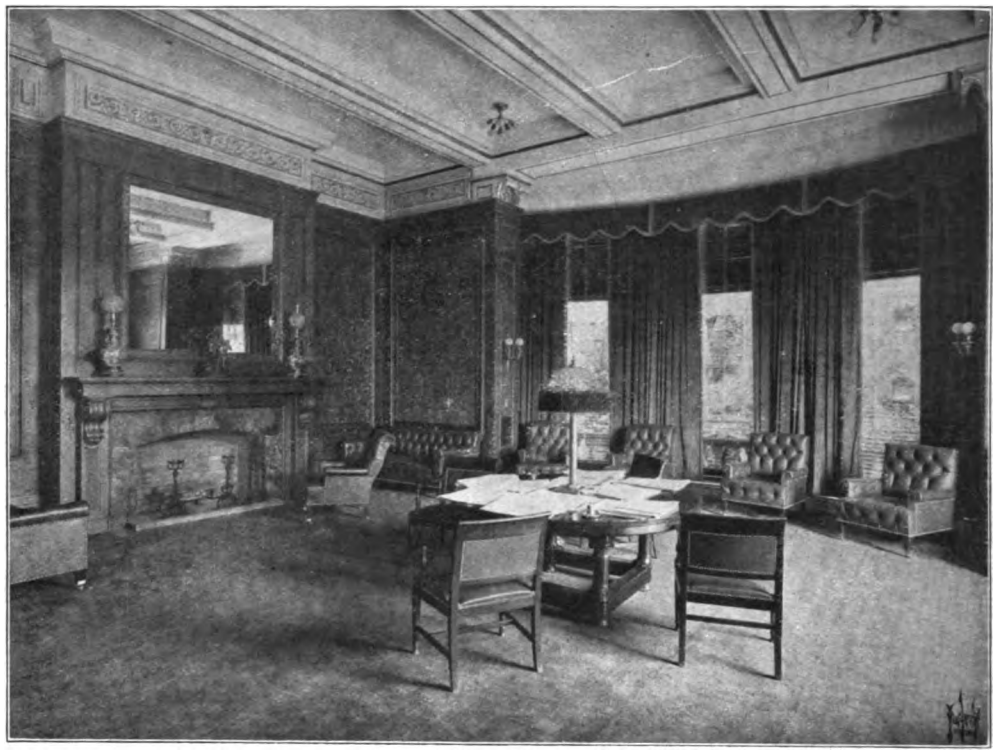
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NOTES & COMMENTS

A GREAT WATER PARK IN JAMAICA BAY

This is the decade of large improvements for the benefit of commerce and transportation and New York City is getting her share of them. The scope of these undertakings is wide, but there is one phase of New York's system of communication which has received less attention than it deserves. Millions are being spent annually to create ampler and cheaper channels of land communication, via New York, between the great manufacturing and industrial sections of the country. But what is being done to provide for the rapid growth of her sea trade? So valuable has dock-space become on the banks of lower Manhattan Island that many of the lesser interests which have been unable to meet the steady increase in wharfage rates have been forced to seek quarters in localities that are ill-suited for their purposes as receiving and shipping points. Even many of the highest priced dock sites are in such a condition of congestion and dilapidation that they command their high rentals only because other equally expensive locations are in worse shape. One gets a very fair impression of the poor condition of New York's waterfront from the deck of a North River or an East River ferryboat. It is a feature of the metropolis in which distance lends enchantment to the view, for nothing can be more incongruous than the contrast between its wonderful towering skyscrapers and the generally squalid condition of its docks.

Greater New York needs new dock facilities as much as subways, and if she does not get them, her commerce will cease to develop with her population. This means, of course, that other cities will get the commerce that she loses. Most of her best deep waterfront is already taken up, and no great extent is to be had without dredging on a large scale. If it can be dredged, and if ships can be got inside, there seems to be no better place for a great meeting place of seagoing trade than Jamaica Bay, which, as most New Yorkers know, is practically a great inland lake close to the ocean and miles nearer Europe than Battery Park. In March, 1906, Mayor McClellan appointed a commission of three engineers to consider the possibilities of Jamaica Bay as a solution of the city's dock problem. The commission, while agreeing on the general practicableness of making Jamaica Bay into a great harbor, differed widely in their layout of the system of docks and wharves, and issued a majority and minority report. Both reports propose to dredge material from the bottom of the bay to raise the swamps and lowlands to the requisite height and deepen the channels the majority report to 20 the minority report to 40 feet in the same operation and to deepen the channel through Rockaway Inlet to the ocean by dredging. The majority report, in addition would build a jetty 2,000 feet into the ocean to intercept the sand which is continually carried by the currents from the east into the inlet.

These docks, of course, would be modern in size, arrangement and in systems of transit, yards and factories by which they would be served, and would be, in consequence, much more effective than the antiquated things that have received our foreign trade for generations; so that, considering the tediousness and difficulty of dredging and construction, the vast increase of commerce necessary to fill up the 25 miles or so of docks that the shores of the bay would carry, it would certainly be many years before they would all be occupied. New York's commerce obviously cannot go on increasing at its present rate forever; from one cause or another there must come a time when it will slacken or suspend its growth. Moreover, New Jersey, which has excellent facilities for similar development in Newark Bay and the Hackensack Meadows which are on the mainland and crossed by most of the main lines of railroad, cannot be expected to lag behind in the race for business.

Until future growth requires their development, Harold A. Caparn, a New York landscape architect, proposes utilizing the flats within the bay as depositories for the material making them navigable, and using them as a great water park for all kinds of aquatic sports, sailing, rowing, motor boating, steamboat excursions, swimming, fishing, and even

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summer camping. There are about 4,200 acres of these flats, mostly submerged at high tide and already belonging to the city, so that little more than the expense of raising them a few feet above high water is needed to secure for Greater New York a pleasure ground quite unique in character and usefulness. As the waters must be deepened, and places found for the excavated material, the filling may be said to cost nothing. A topsoil that would nourish the roots of trees and plants, and hold the sand in its place can be formed by the mud from the bottom of the bay and by the street sweepings of the city. Access to this archipelago of green islands and tortuous channels would be mainly by a boulevard running alongside the Long Island Railroad which crosses the bay and by excursion steamboats which would leave various points along the shores, and visit places of interest on the islands. Planting should be kept generally low, mainly of native shrubs and plants, and the whole treatment calculated to preserve the sentiment of flatness, monotony and vast extent which now give the region its individuality and charm.

We are thus left to imagine a vast circle of commerce, an apparently endless chain of great docks and wharves served by a waterway three-quarters of a mile wide dotted with all kinds of shipping from ocean liners downward, and all enfolding numbers of spreading green islands with pleasure craft of a great city riding on the ample and tortuous channels. This surely is a picture of a superb civic possession, a scene unparalleled among the municipal parks of the world, and having the advantage of costing so little that the city would not feel the expense. But, park or no park, it is to be hoped that New York will not give up any part of her holdings in Jamaica Bay and discover her mistake when it is too late to get them back.

TO RE-HAUSSMANNIZE PARIS

The announcement that within a few years the sinking fund payments of the city of Paris will—if not heroically checked—extinguish the municipal debts of 1865 and 1869. opens an alluring prospect to Parisians—and to cities in general. And such is the attitude of mind in these civically ambitious days, that the allurement is not so much the possibility of reduced taxes as the opportunity for vast new borrowing and great public works. The courage that would adequately meet this situation is naturally not lacking in Paris, and the Prefect of the Seine has laid before the Municipal Council a magnificent scheme of improvement and beautification, worked out after several years of study by experts. The idea is to compass the improvements by extending the present payments into the sinking fund until 1945, and so to avoid the appearance of a new tax. Of the proposed improvements, "Municipal Journal" says: "At an expenditure of $80,000,000 out of a total issue of $120,000,000 securities, it is proposed to clear spaces about the overcrowded centers and widen the streets. Large sums are apportioned for providing in the new parts gardens, school yards, and promenades. On improving the headquarters of the twenty Mayoralities into which municipal Paris is divided, $5,000,000 will be spent." Doubtless all this will prove a prod to the recently widely awakened cities of the United States.

STREET LIGHTING REPORT

The lighting committee of the Civic League of St. Louis has issued a well-printed and well-illustrated pamphlet of 44 pages containing its report. While the subject is "Street Lighting in St. Louis," the problem discussed is so common to all cities that the report is of pretty general application. It considers the relative merits of municipal ownership, competition and regulation, decides that competition is ineffective and that "municipal operation should not be undertaken until the power to regulate and control has been thoroughly tested." It states the conclusion that "for the present at least the residential section of the city should be lighted by gas," and it contains a chapter on ornamental street light fixtures, which to architects is probably its most interesting portion. Most of the illustrations deal with this subject. The lighting of the business streets of Los Angeles—on the whole probably the most artistically effective and most interesting experiment of its kind in America—is described at length, with costs, etc. Other cities referred to are St. Paul, St. Louis, Denver, Rochester, and San Francisco. The combination of light and trolley pole, as effected in the three cities last named, is still in the experimental stage as far as design is concerned; but where the overhead trolley is in use, as it commonly is, some such union is very desirable.

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CO-OPERATIVE MONUMENTS

The arranging of the terms of the competition for the "architectural monument including a statue" that is to be erected in London as a "World's Shakespeare Memorial," seems to settle definitely the disputed question whether the memorial should take the form of theatre or monument. The committee desires that the monument be completed by 1916, the tercentenary of Shakespeare's death, and its recently published statement on the subject makes it clear that the financial aspect of the subject had a good deal to do with the rejection of the proposal of a national theatre. Accepting the decision, it may be reflected that the construction of monuments, or of monumental buildings, by the co-operation of the people of many lands—even of many nations—is something new in history. The Peace Building at the Hague, for example, and the World's Shakespeare memorial are enterprises that have had no parallel, in the breadth of their representativeness and the resources that stand back of them, prior to the recent knitting together of all the earth with strands of wire. But it cannot be said that modern genius rises to its opportunity, when one thinks that the Parthenon, the fora, the mediaeval cathedrals, were the expression of single cities—of towns, as we would say to-day. It were better to defer "world"-construction until a world-genius is born to make them worthy.

RE-PLANNING A SUBURB

So far as reported, Ridgewood, N. J., is the first of the towns that are properly suburbs of great cities to engage a professional town-planner to make a report on its possibilities for improvement. The work, which has just been completed for Ridgewood, ought to have interesting results. It was ordered by the Board of Trade—a misnamed organization, for, as a village of commuters, Ridgewood has practically no trade of its own—and there is a determination to profit by the advice and suggestions secured. The public spirit of the town not only furnished the money to pay the town-planner, but it subscribed enough more to publish handsomely his report, and having committed itself so far it is not likely now to desist. Ridgewood has about 2,500 population, is charmingly situated in that beautiful country with many streams which the Erie Railroad penetrates between Passaic and Tuxedo, and the planning—or re-planning—here of a residential suburb, almost exclusively occupied by the well-to-do, may well have been a pleasant task. To make the station the focal point, facilitating and shortening the means of approach to it; to increase the beauty and restfulness of the quiet residential streets while enhancing the convenience of the street plan; to lay out a beautiful drive and proper recreative opportunities; to provide for a rapid and considerable growth in population, and to bring all this within the financial resources of a little town—those were the main objects of Mr. Robinson's report. Obviously its service was social more than commercial or industrial, but in proportion as its social service is effective, it must make directly for the town's prosperity. In fact, the wonder is that more suburban communities have not taken up this movement for re-planning on a scientific and comprehensive scale, which is fraught with so much possible good to them. Such work in cities is expensive business. Yet they have gone into it to a marvelous extent, though with them the promised improvements are spectacular mainly, while with small towns they are not aesthetic only; they enter into the intimate home life of the citizens. It is significant, too, that in Europe this re-planning is becoming most emphatically a small town and suburban movement. Ridgewood will have, perhaps, the distinction of starting that movement here.

THE RAILROAD AND THE TOWN

There has recently been published in leaflet form the address delivered last autumn before the American Civic Association on the improvement of railroad stations and their grounds. The facts that the speaker was Joseph T. Richards, the Pennsylvania Railroad's chief engineer on maintenance of way, and that he concerned himself with the business and financial aspects of the question, make his argument particularly interesting and valuable. He quoted with approval the statement of an officer of a certain road to the effect that his company would be justified in expending $5,000 or $6,000 to build for a shabby little town an attractive station and put a garden around it, since the half dozen new houses that would certainly be constructed in the town almost at once, as a result of these improvements, would alone pay the interest on the

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money thus expended. Applying the thought to cities, and turning the argument from the railroad to the city, Mr. Richards said:

"Take the railroads running into a large city. Some cities you can call to mind which are always mentioned as undesirable places in which to live by reason of the houses being built on each side of the track without any show of lawns, trees or shrubbery; the streets are often laid out so that the houses back up to the railroad; and the back yards, with their clothes lines, leading sometimes out of three or more stories of the house, ashes, dogs, chickens, etc., present the worst appearance possible, all of which tend to give an undesirable reputation to a city. Another one you may call to mind, where the city has laid out parks and broad avenues, and the traveling public gets a view of these, the city getting the credit of being a beautiful place. These impressions of persons passing through are of the greatest importance, and one city will grow by reason of the favorable impression and good words spoken for it, while another will degenerate, and no one will recommend it as a place in which to live."

Considering the source, this is a very interesting argument; and the best of it is that we all know it is true. Station building has made a great advance in the last few years; and the idea that the railroad's right of way through a town is not necessarily a scar—that viaducts, retaining walls, and overhead bridges which are not only substantial in construction but good in design do as much for the railroad as they do for the town—is naturally the next step in this chapter of civic education. But the railroad must make the first improvement. Private property owners cannot be expected to do much for holdings along the dirty and slipshod old style right of way, and amid such surroundings the city hears little call for "parks and broad avenues." The railroad speaker was perfectly right—but, "gentlemen of the railroads, it is up to you. And it may be admitted you are rising to your obligations fairly well."

EAST SIDE DEVELOPMENT

The memorial tower which it is proposed that "the East Side" shall present to the city of New York, to commemorate the completion of the Delancey street subway loop, is at this writing more interesting as a civic than as an architectural expression. This is partly because the design as yet is only tentative, not having been passed upon by the Art Commission; and the design attempts to include so much that it is not likely to be accepted without modifications. In general, the suggested construction—pitifully not without appropriateness—is that of a triumphal arch rather than of a tower. The East Side was not alone in its fight against an elevated railroad loop, but the victory was literally the East Side's own, for the argument that prevailed was consideration for that section's desires and appearance. And that there should be consideration of these—where, by the way, the voting population is most condensed—is even yet so extraordinary a development that it seems to call for the erection of an arch to record and celebrate the triumph of the sovereign people! As one walks through the East Side, one questions the depth with which the proposed gift really will enter into the people's lives. Of course, if there were anything like a popular subscription to it, however small the individual gifts, it would enter deeply, for the East Side has not even pennies to spare without the half-pang and half-thrill of a self-denial. The composition of the proposed soliciting committees suggests that the territory will be pretty completely covered. In any case, it may be remembered that the East Side population is a shifting one; and 20 years from now it will not know if the inscription on the tower slightly overstates the case. So a new East Side may be expected to gain from tower and tablet courage and inspiration. For the plan to "park" Delancey Street, there may be cordial approval. A great parked street through the East Side is likely to mean more, to a people who live on the streets and love them, than would the same extra acreage put into the "breathing spaces" and little parks for which there is constant cry. The experiment is civically interesting. And if, with the arch at one end and—as suggested—the Josephine Shaw Lowell memorial at the other, it develops into the people's road of triumph, there will be nothing of its kind anywhere more interesting—especially if the nationality of the resident peoples should find on it constructional expression.

A REPORT FROM ST. LOUIS

The Civic League of St. Louis is one of the few really great local improvement organizations — best known probably for its comprehensive study for a new "City Plan" for St. Louis, but not less efficient and full of energy in many directions. A recent publi-

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cation by the League is its report for the fiscal year ending in April. This contains a list of the eighteen standing committees, their purposes and members; a financial statement, showing receipts for the year of nearly $9,000, which was a thousand more than expended; the annual address of the president and the secretary, and an address by Archbishop Glennon on "The Ethical Value of Civic Improvements." The membership of the League is some 1,400, and to a remarkable degree it appears to be a working membership. The address of the president, reviewing the work of the various committees, discusses at some length the steps that are being taken to carry out the city plan as outlined by the League more than a year ago and then reviewed in this magazine. He says: "The five small parks in the crowded district, provided for in the bond issue, have been located and are to be improved along the general lines suggested by the Civic Centers Committee of the League," the Public Library Board and Public Recreation Committee working in harmony to place the branch libraries and public baths near these parks; that condemnation proceedings to acquire the right of way for the Kingshighway are being pushed, and the river bluffs at the foot of Caldwell Street—six acres in extent—had been already condemned as the southern terminus of the boulevard when the president prepared his report. He says that the War Department of the government has had tentative plans and estimates prepared for the national highway which the report contemplated from Jefferson Barracks to the city limits, and which in connection with Kingshighway will form a boulevard more than twenty-two miles long. The desired improvement of the River Des Peres and its banks is being planned, he declares, exactly as the report recommended. A bill for the suggested outer park system will be ready for the next session of the legislature; and while the scheme for grouping the public buildings is not to be carried out on the elaborate scale contemplated in the report, the ordinance for the purchase of the land for the new court house has been passed, and the architects are making plans for the building, which will be so located as to leave a block of open park space between it and the City Hall. The address of the secretary contained an interesting classification of citizens into three groups: "men who are living here solely for what they can get out of the city in a business way; those who are living here because it is home, and they can live their honest, peaceful lives undisturbed; and those who, in addition to honest living, are trying to put into the city all they can of a better civic life. The first is the civic philistine, the second the civic individualist, and the third the civic altruist." Mr. Fesler took a hopeful view of what the altruists could accomplish by showing what they had already done for cities. The following summary by him is incomplete but striking:

"Has it occurred to you that parks are public institutions of practically the last quarter of a century—that in 1870 only three cities in America had park areas worthy of the name—New York, Boston and Baltimore—that in 1886, twenty-six cities had park areas averaging 500 acres each, and that to-day only four of the 156 cities above 30,000 population are without at least one park?

"Do you recall that the first public playground was not established until 1890 in Boston, and that to-day in the first fifteen cities we have more than 150 public playgrounds maintained by municipal revenues, many of which are equipped with baths, gymnasia, club rooms, assembly halls and branch libraries?

"Do you remember that it is within the last ten years that free public concerts have become a permanent feature of our park systems, and that the first free public bath was not built until 1894? Why, to-day, the strongest card which the ward politican can play is to secure for his people a playground, a public bath or a branch library."

CO-OPERATING FOR BEAUTY

An interesting recent development is the co-operation of the State of Wisconsin, the city of Madison, the rich and rapidly growing State University, and the Park and Pleasure Drive Association—which for Madison serves as a park commission—in engaging on an annual salary the advisory services of an Eastern landscape architect. The Boston "Herald" commenting on the invitation and its acceptance, recommends similar action in other communities. It says: "One competent expert, serving many agencies with common ideals in a given community, can produce a vastly more harmonious and beautiful effect than if each agency had a different adviser." By co-operation, too, a higher priced, and therefore presumably more capable, man can be secured and as questions come up that are not exactly within his line specialists may be called to consult with him. So will a city obtain expert guidance. The Wisconsin example is interesting also as an instance of the too-rare co-operation between the city and State in the improvement of a State Capital.

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PREPARING FOR THE COMING INAUGURAL PROCESSION

The National Society of the Fine Arts, in conjunction with the Washington Architectural Club and the Washington Chapter, American Institute of Architects, invite competitive plans for the arrangement of stands for spectators to be placed on the route of the inaugural procession next March.

A committee in its circular says:

"The ceremonies attending the inauguration of a new President attract large numbers of visitors to Washington. The city should be at its best; but, unfortunately, the route of the inaugural procession, where visitors congregate, has heretofore been marred by the building of large stands, which hide the statues and trees, and do great injury to both, with the additional danger of destroying them. The trees and statues and public buildings, which are a feature of Washington, should be visible in their proper settings.

"The committee in charge of the inaugural festivities is a volunteer committee, and is appointed so near the time of the inauguration that it is not possible for it to thoroughly consider the problems.

"It has been thought that a preliminary competition for the stands would tend to a solution of some of these problems, and this competition is undertaken for that purpose, without offering any guarantee to the competitors that their designs will be accepted.

"The designs which are awarded prizes will become the property of this committee, and will be published for the benefit of all interested in the subject, and will be offered to the inaugural committee at the next Presidential inauguration, for such use as the committee may see fit to make of them, without promise of compensation beyond the amount of the prize."

"Three prizes are offered: First—Three hundred (300) dollars. Second—One hundred (100) dollars. Third—One hundred (100) dollars."

"Plans will be delivered, prepaid, by December 1, 1908, addressed to Mr. Percy Ash, the Octagon, Washington, D. C., from whom further information is to be had."

DEPUTY STATE ARCHITECT FOR NEW YORK

The office of State Architect of New York, which is at present held by Mr. Franklin B. Ware, of New York City, has assumed added importance and dignity. The legislature of 1908 created the new position of Deputy State Architect, with a salary of five thousand dollars per annum, and its first occupant is Mr. M. Francis Oliver, of New York City, lately a member of the New York firm, Butler, Rodman & Oliver, architects, and a cousin of General Robert Shaw Oliver, Assistant Secretary of War.

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Recent Books on Architecture and Building

MODERN ARCHITECTURE AND CRAFTSMANSHIP*

The development of architecture and craftsmanship has long been at a standstill in Germany, says Mr. Mebes in an interesting book which is illustrated by an extended series of eighteenth century buildings in Germany, Denmark and the Netherlands. The long and continued wars for political independence of the German states exercised so powerful an influence on architecture and the allied arts in those countries that even the works of the celebrated Wilhe'm Schinkel and his equally talented contemporaries were unable to exercise any lasting influence on German architecture. More recently the condition of architecture and craftsmanship has, on the whole, shown no inclination to continue the rational development of a popular architecture in Germany. Archaeology there has been, and slavish imitation of dead forms and customs. New types of buildings have been called into being by new economic conditions. Commerce has produced marvelous specimens of the engineer's art. The development of shipbuilding would be simply incomprehensible to our ancestors of the beginning of the nineteenth century. But what has been accomplished in the more intimate fields of architectural endeavor? One has but to walk along the Kurfürstendamm, one of the most prominent thoroughfares of a newly developed section of Berlin, says the author, and look at the general character of the blocks and blocks of recent apartment houses, to gather an idea of the present condition of architectural art. Loud and dowdy are they in the violent originality each to outdo its neighbors at any cost in propriety. Each one seems to say "The like of me has never been done before."

What Mr. Mebes says he confines, of course, to Germany; but its almost universal application would not be far from the truth. The Champs Elysées or Central Park West are simply other forms of the malady. The respectable portion of society seems to have little or no power to influence the propriety of the houses in which many of them are forced to live. Or is it that they have no interest in the matter? No doubt there is not to-day, in the United States at least, a sufficiently strong body of public opinion to affect in any degree the character of domestic buildings.

Another discouraging sign of the times for architecture, says Mr. Mebes, is the comparative neglect, in the professional curricula, of a study of an architecture which is really helpful to the architect of to-day in solving his problems. He argues that more attention should be paid to those buildings of the beginning of the nineteenth century in which there exists at least some semblance of modern customs, needs and conditions, rather than burden the mind of the architectural student with the multitudinous details of the dead styles. The most thorough knowledge of Greek and Gothic design will afford him very little help in facing the complex problems of the twentieth century. It is only by going back, he thinks, to where our forefathers left off in the development of the art of erecting appropriate and beautiful structures that we can to-day put ourselves into a favorable frame of mind to continue the development of architecture and really produce buildings which are of and for the people of this generation.

*Um 1800: Architektur Und Handwerk Im Letzten Jahrhundert Ihrer Traditionellen Entwickelung, by Paul Mebes, Regierungsbaumeister und Architekt. F. Bruckmann A.-G., Munchen 1908.

HOME DECORATION AND FURNISHINGS*

A good indication of the increasing popular interest in architecture and especially in domestic work is the large number of books that have recently appeared on house building and decoration both in America and abroad. It is such a work which prompts these remarks. The book consists of a series of some 240 pages of attractive photographic illustrations of decorated and furnished rooms, furniture and house furnishings of many kinds, designed by well known German, Austrian and Danish architects and decorators, and executed by competent craftsmen. These illustrations are preceded by a short article on the subject of modern domestic interior decoration and furniture by Dr. Hermann Warlich, of Cassel. The

*Wohnung Und Hausrat Mit einleitendem Text, von Dr. Herman Warlich. F. Bruckmann A.-G., Munchen 1908.

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aim of the book, says its author, is to state some of the leading considerations that enter into the production of simple, beautiful and select home surroundings. The author qualifies what he has to say by the remark that the statements which are made in his article are in no sense to be regarded as of general application. Anything which may to-day be demanded and accomplished in the realm of home decorations and furnishings is the result of particular needs, tastes and circumstances. Dr. Warlich's book aims, above all, to re-awaken in the cultured public a love of the beautiful and select, and by numerous pictures he hopes to arouse a sense for simple and appropriate home furnishings and decoration. He records the fact that only during the last decade has there been noticeable a striving to make the houses of refined people consistent creations of the deepest signification of their public and private lives, in short to imbue their occupants with an artistic sense, a *style*, and thereby to create the basis of a home culture, which the author says (speaking of Germany), "we have not possessed for half a century." Further on he says that "there can be style only where there is culture." He then discusses in detail the general question of tradition in architecture and its retarding effects for modern art if allowed to enslave it. He notes significant signs of an artistic emancipation from customs which have no meaning for people of to-day. Then follows a discussion on harmony and rhythm of decoration in reference to the purpose of the room and its internal and external surroundings. Hygiene, light and color are especially taken into account and such practical matters as lighting, heating, and general sanitation of surfaces are treated.

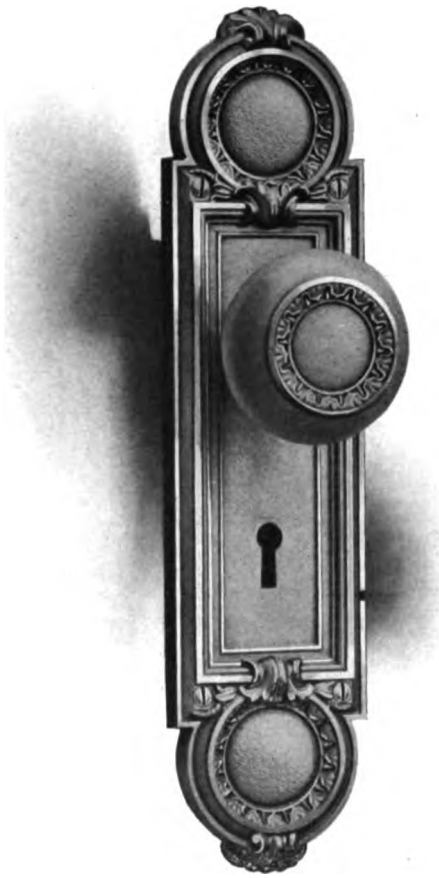
The general impression that one gets from Dr. Warlich's book is that the subject of house decoration and furnishing is really of intense interest and of great importance to a people's mental welfare—a decidedly valuable impression.

WHAT THE ARCHITECTURAL CATALOGS SAY

Most architects are not at the present moment very busy, nor have their offices been besieged by too many clients during the past year. The catalogs published by such associations as the Architectural League of America, The Tee-Square and the Washington Architectural Clubs plainly say that to anyone who is curious enough to turn over their pages. The absence of the usual multitude of gigantic skyscrapers, huge hotels and the others is remarked. The customarily liberal appropriation for building construction has taken on more modest proportions, though the falling-off in the quantity of large undertakings has not affected their quality as might be supposed.

The progress of architectural design in the year's public as well as private buildings is there. Especially noticeable is the increased popularity of the smaller suburban and country houses which begin to show in their design a discretion indicating that their owners take some interest in them besides having them grand and (according to a popular notion that still holds considerable sway) true to some by-gone tradition which means nothing to them but the name. The number of original and painfully unreasonable designs is rapidly decreasing. And there can be no more hopeful sign that the standard of architecture with us is improving. If the integrity of American government and institutions depends on the integrity of the family and the individual, the character of our national art and architecture must come about through the artistic elevation of our homes.

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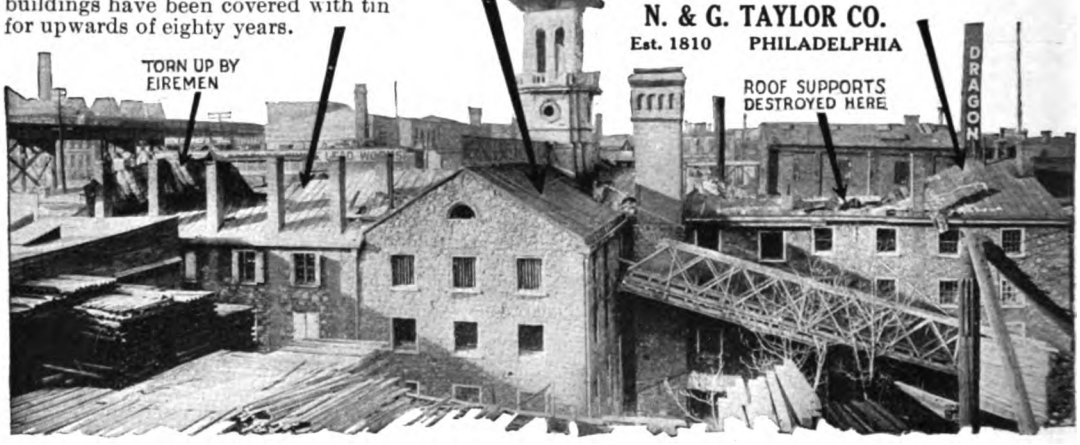
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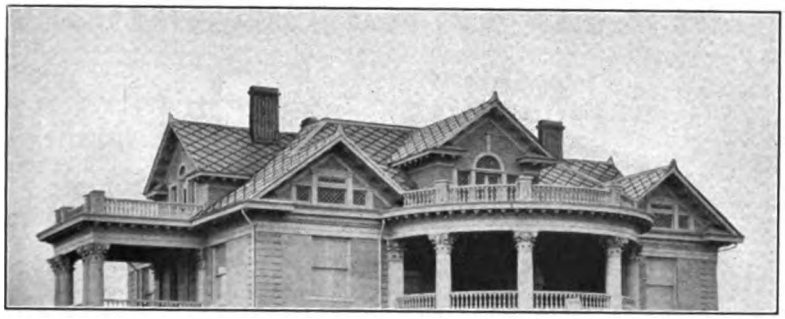
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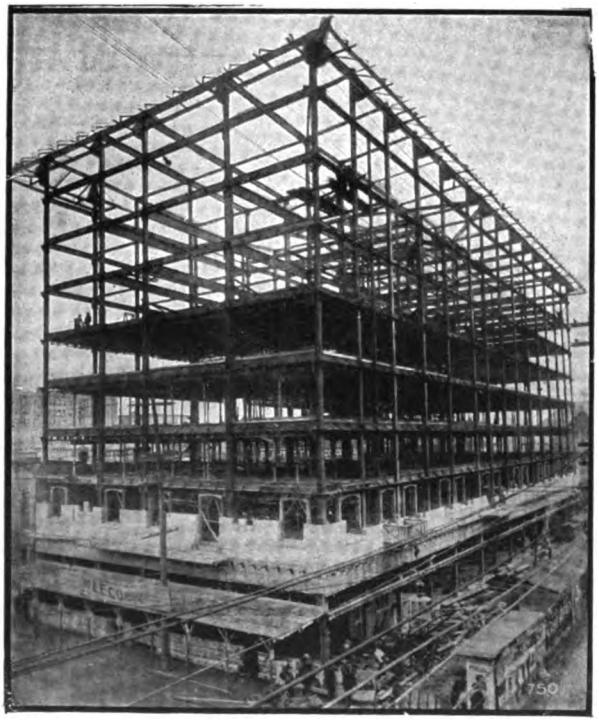
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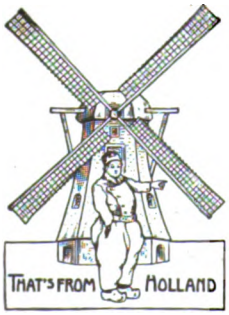
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90 Warren Street, New York

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FOX'S
WATER PAINT
PERMANITE

A fireproof material for whitening and painting walls and ceilings of factories, warehouses, mills, stables, sheds, courts, shafts, etc.

Made in dry condensed form. Requires mere addition of water.

ABSOLUTELY RELIABLE

M. Ewing Fox & Co.

SOLE MANUFACTURERS

136th Street and Rider Avenue, New York
53-55 East Lake Street, Chicago

What
Enamel
did you specify ?

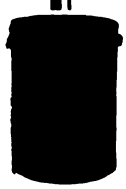
Your clients' interests are fully protected if

Porcelite

appears in specifications

Made in Gloss, Matte Dull Finish and Dead Flat Effect, White, Ivory and Colors.

The GUARANTEE of
"The Enamel House"
insures satisfaction



The Thomson Wood Finishing Company
Philadelphia

JENNINGS & MOUNT
180 Broadway
New York Representatives





The Value of Extreme Whiteness

Carter White Lead is really white—a pure white. Other white leads are gray by comparison.

This extreme whiteness of Carter Lead insures strong, pure colors of great brilliancy. It produces those soft, velvety and delicate tints so often desired by architects and which are impossible to produce with ordinary brands of lead.

CARTER
Strictly Pure
White Lead

is also the finest lead on the market—it is always uniform in both color and texture. This fineness makes Carter spread farther—just as a cup of flour will spread farther than a cup of wheat.

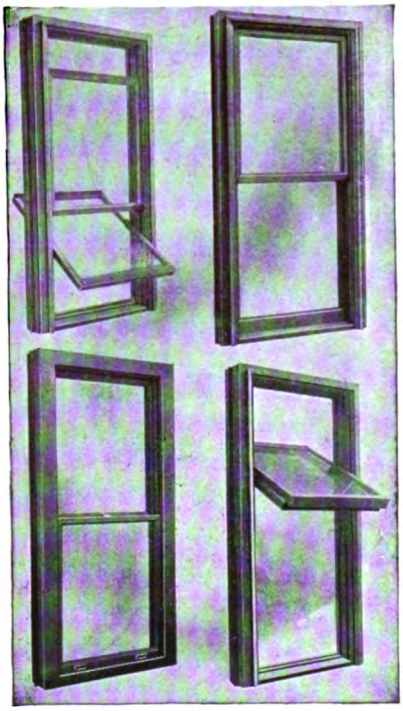
Specify Carter for your next particular job—watch the results carefully. After one experience you will continue to specify it on its merits.

Let us send you a copy of our beautiful book. "Pure Paint" with a set of modern color schemes. They may help you.

CARTER WHITE LEAD CO.
W. P. Station 101, Chicago, Illinois
Factories: Chicago—Omaha



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Mullins
Fireproof Window
Proved Best by Every Test

Is absolutely fireproof and actually does what no other window can do—it stands every test. **Ask for an estimate** or write for our convincing catalogue.

We also make everything in architectural sheet metal work—statuary, skylights, wrought iron grilles, cornices, etc. 120-page catalogue of stock designs on request.

The W. H. Mullins Co.
340 FRANKLIN ST. SALEM, OHIO

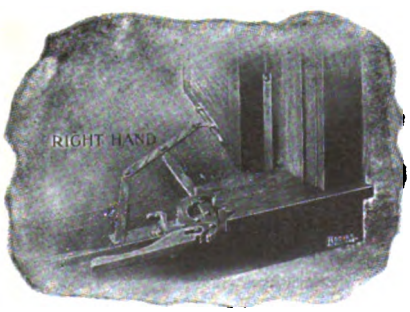
APPROVED FIREPROOF WINDOWS
PIVOT AND DOUBLE-HUNG

The LEE Hollow Metallic Windows are inspected and labeled under the direction of the Underwriters' Laboratories (Inc.)

Blue Prints Showing Construction Sent to Architects on Request

MANUFACTURED BY

THOMAS LEE, 128-130-132 West 2d Street
CINCINNATI, OHIO



Write us for full size details of window framing for correct application of the Sperry Casement Window Adjuster. This is essential. Do not specify without this detail before you.

Casement Windows

The Sperry Casement Window Adjuster **opens, closes** and **locks** the casement without disturbing the inside screen or draperies.

Operates entirely underneath the stool.

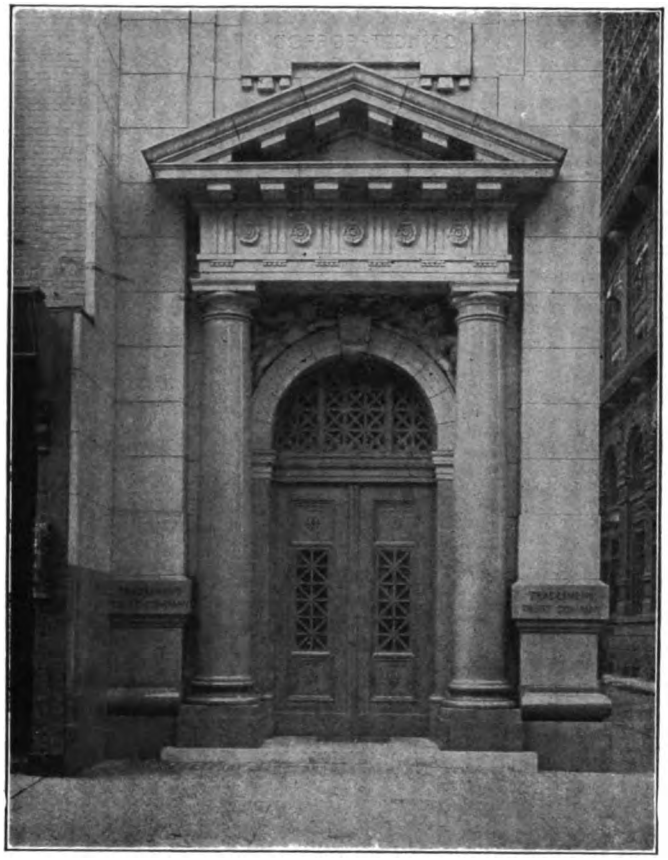
Holds the window rigidly in any desired position.

Out of sight when not in use.

THE OSCAR C. RIXSON CO.
111 West Harrison Street CHICAGO, ILL.

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RICHARDSON FIREPROOF DOORS



Some of the handsomest outside doors in some of the finest buildings in the country are made by us. Copper or Bronze Covered Richardson Fireproof Doors are used on the inside of buildings as well.

They make each room a separate building

Let us send you our literature explaining the construction, economy and safety of our doors.

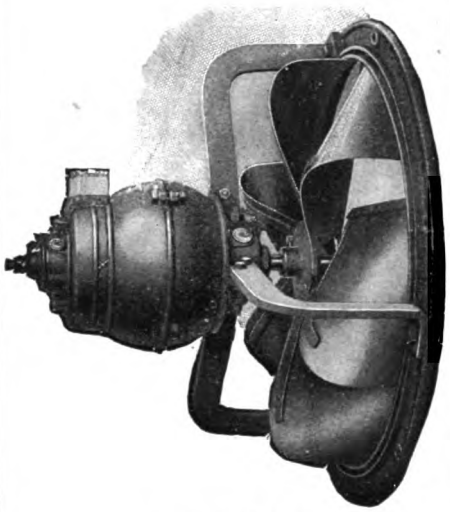
Thorp Fireproof Door Company

Minneapolis, Minn.

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The

Blackman Fan



was specified in

The Plaza

where the best and most economical ventilating wheels (or fans) were required.

The Blackman Wheel

is the only exhaust wheel (or fan) known which takes in air at right angles as well as in lines parallel to its axis or shaft. Its **Peripheral Flange** gives it a feed area **66 per cent.** greater than any other form of wheel. The amount of air moved and power required has relation to the area of the feed and delivery surfaces in all air moving machines.

Over Eight Thousand in Use

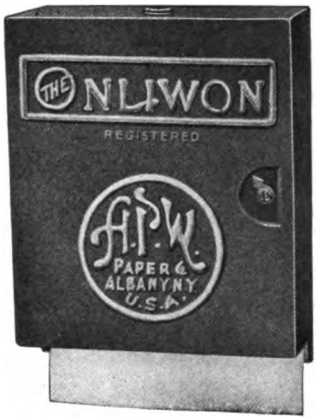
Lists of large and well known buildings where the BLACKMAN serves the specific use indicated, and catalogues, fully describing same, on application. Let us solve your problem in ventilation.

Howard & Morse

45 Fulton Street, New York

The "Onliwon"

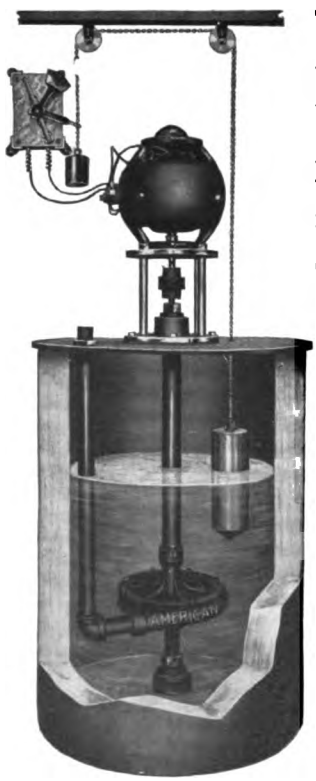
Toilet Paper Cabinet



Delivers units of two sheets uniformly, invariably and *silently*, eliminating the waste and litter incident to the unprotected roll or cabinet. Nickel plated steel *locked* cabinets for hotels or other public places. Handsomely ornamental metal for residential use.

Booklet showing special designs for new construction will be sent architects or others on application.

A. P. W. Paper Co., Albany, N. Y.



Type C. M. D. Electric Bilge Centrifugal Pump

Manufactured by

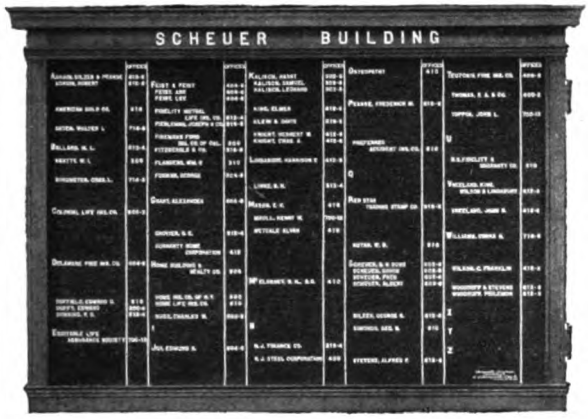
The American Well Works

Aurora, Illinois U. S. A.

Chicago
St. Paul
Portland, O.
San Francisco
Los Angeles
Dallas, Texas
New York
London

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A Sound Proposition for Architects



By including a directory in your specifications and installing it during the erection of the building, you will save the cost of the marble that would occupy that space.

This saving will cover the cost of the directory.

U. S. Changeable Sign Company Directories and Bulletins are

The only ones sold outright

They are the only directories made which do not necessitate correspondence and consequent delay when changes are required. The superintendent can make changes in three minutes from his supply of letters.

Round faced, movable, white composition letters of any size, held by springs on a grooved broadcloth surface.

Estimates furnished promptly for special frames in bronze, iron or wood.

Catalog, free on request, gives full information as to stock sizes and prices.

U. S. Changeable Sign Company, 3 W. 29th St., New York City

ELIE J. MONEUSE, President **LOUIS H. HUOT, Vice-President**

Established 1852

Duparquet, Huot & Moneuse Co.

MANUFACTURERS OF

French Cooking Ranges

TRADE IMPERIAL MARK

AND COOKING EQUIPMENTS OF EVERY DESCRIPTION FOR HOTELS : RESTAURANTS : CLUBS : FAMILIES INSTITUTIONS : YACHTS : STEAMSHIPS, ETC.

43 and 45 Wooster Street, New York

BRANCH HOUSES

1420 Penn Avenue, N. W., Washington, D. C. **88 and 90 North Street, Boston, Mass.**

Layouts and Details, also Catalogue, furnished upon application

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Higgin All Metal Window Screens

THE advantages of Higgin All Metal Screens over wooden screens in ***not warping, cracking, swelling nor rotting,*** are apparent.

The difference they make in the *appearance* of a house can hardly be overestimated. They have a trimness and inconspicuousness impossible to obtain with wide, thick, wooden frame screens.

The frames, made of steel or copper, are but $\frac{9}{16}$ of an inch thick. They can be used on the outside of a window with the narrowest casement without interfering with the outside shutters. They are finished in a variety of enamels or dull antique. The netting of solid bronze wire is *rustproof* and of a fine mesh that keeps out mosquitos as well as flies.

The slight difference in initial cost is saved many times over by the difference in wear. They are being specified for the best houses everywhere.

Offices in all large cities. Measurements taken, screens delivered and fitted anywhere in the United States.

Catalogue showing Higgin Screens for every style of window and door—for old as well as new buildings—sent to architects and owners on request. Address

THE HIGGIN MFG. CO.
504-524 Washington St., Newport, Ky.

THE CUTLER MAILING SYSTEM



MODEL F

Model F, the latest development of the Mail Chute, substantial, simple, quickly and easily accessible to authorized persons only. Any two of the front panels released by a single turn of a key.

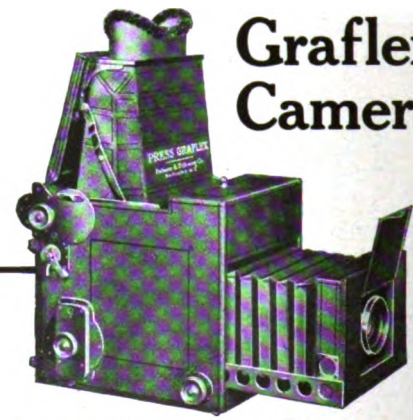
Model C, with its entire front in the form of hinged doors under government lock, is practically a continuation of the mail box to the top of the building. Adapted to buildings of the highest class, where the best possible equipment is required.

Installed under the Cutler System of Mail Chute Patents, which completely cover the Mail Chute in such forms as will meet the present business requirements.

Infringers are being prosecuted.

THE CUTLER MFG. CO.
ROCHESTER, NEW YORK.

Graflex Cameras



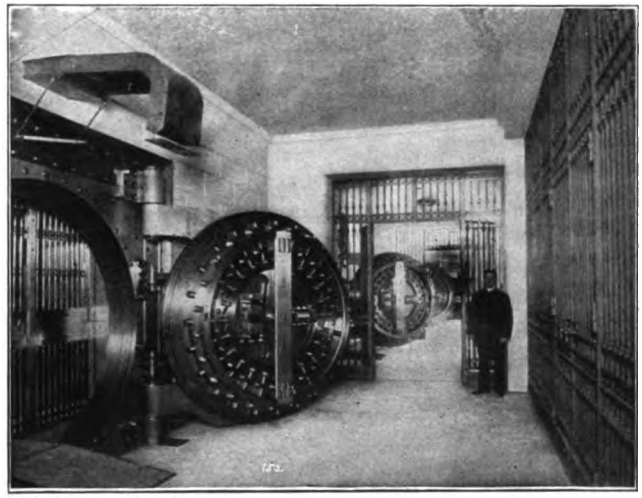
Some things you can do with a Graflex

Make exposures from time to 1-1000 of a second.
Make "Snap Shots" indoors.
Make instantaneous exposures on dark days.
See the composition of the picture, right side up, full size of negative up to the instant of exposure.
Secure better photographs than with any other camera.
Graflex Cameras may be used with Roll Film, Plates or Film Pack.

Graflex Cameras from $60.00 to $200.00.
Catalog free at your dealer's, or,

Folmer & Schwing Division
EASTMAN KODAK CO.
Rochester, N. Y.

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Battery of Vaults in New Building of the American Trust and Savings Bank, Chicago, Ill.

Manufactured By **York Safe and Lock Company**

Makers of Bank and Safe Deposit Vaults, Fire and Burglar Proof Safes and Vault Doors, Safe Deposit Boxes, etc.

Factory: YORK, PA. **Salesroom: 55 Maiden Lane, NEW YORK CITY**



HILL'S Famous Dryer

SPECIFICATIONS are never complete until the smallest of the **Details** is cared for. One of the **Important Details—Hill's Famous Dryer.**

More necessary than the tubs in the kitchen.

SPECIFICATIONS:—Written "HILL'S."
CONTRACTOR Furnishes "HILL'S."
RESULT: PLEASED CLIENT.

Adapted to Roof, Balcony or Lawn. Holds 110 to 150 feet of line.
Write for catalogue.

HILL DRYER CO., WORCESTER, MASSACHUSETTS
1133 BROADWAY, NEW YORK

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It Has Stood The Test

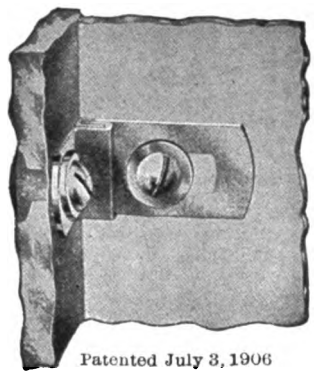
Petz Patent Store Front Construction

The Petz system of store front construction has stood the test of practical usage, and has the unqualified indorsement of hundreds of merchants, contractors and architects.

It offers superior advantages in strength, ease of installation and artistic finish and design. The most practical store front construction on the market. Indorsed by all plate glass insurance companies. Write for our booklet, "Listen to Petz," today; it's free.



DETROIT SHOW CASE CO., 477 West Fort Street, Detroit, Mich.



Patented July 3, 1906

All-Glass Store Fronts and All-Glass Show Cases
REQUIRE MY

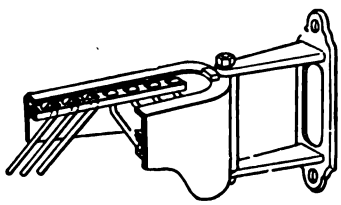
Interchangeable Safety Clasps

They absolutely prevent breakage of glass under all conditions

Neat, Durable and Adjustable to All Angles. Proven by nearly two years' test to meet all requirements. Sample sent upon request.

T. VAUGHAN - Everett, Mass.

You can't lose the pins



Get the Idea?

Hose hung on PIVOTED METAL PINS, which instantly drop each fold as hose is withdrawn. Pins remain hanging ready for immediate use when hose is returned to rack.

Made of *malleable iron;* any size, any finish.

Fitted with pipe-clamps or wall-plates as desired.

We also manufacture the well-known "**HUMP**" **SWINGING HOSE RACK** and a full line of Wall Reels. Catalog on application.

See "Sweet's," page 1362

"WIRT'S ECLIPSE" SWINGING HOSE RACK

"To see it is to specify it."

WIRT & KNOX MFG. CO.
North Fourth Street, Philadelphia

A BUREAU for DRAUGHTSMEN

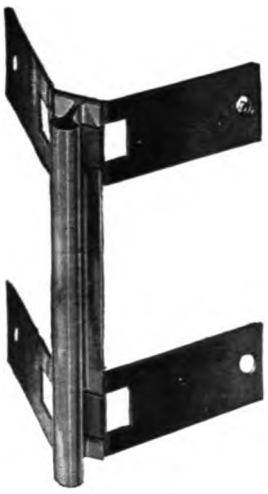
ARCHITECTS desiring to engage draughtsmen and draughtsmen desiring positions are invited to use this bureau entirely FREE of COST.

Draughtsmen, when registering, should send their names, references, and any other information which would be of assistance to an Architect in making a choice.

The Architectural Record, 11 East 24th Street, New York

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The Parker Metal Corner Bead



is Hot Galvanized Steel and will not rust.

Strike any Corner Bead that has side punchings for the alleged keying of the plaster a moderate blow on its face, and you will break the bonds as far as the vibration extends.

The Parker is the only bead that will hold plaster on its blade without punching. The plaster is keyed between the flange and the extending lip with a grip that will withstand any blow the face of the bead is likely to receive.

The Parker builds the corner for the plasterer as straight as a plumb line, and puts straight edges and plumb lines out of business.

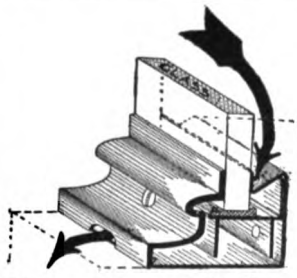
The Parker Corner lasts the life of a building, and saves in repairs many times its cost. It takes the place of wood trim when used around windows, and makes a fireproof, sanitary, artistic corner, at trifling expense.

Stock lengths, six, seven, eight, nine and ten feet, fifty strips in a bundle.

W. F. PARKER, Manufacturer

856 ELEVENTH AVENUE NEW YORK

Kawneer System of Glass Setting FOR STORE FRONTS



Clean Show Windows

in a store building are pre-eminently a necessity. Kawneer System of Glass Setting provides the *only* method of draining plate glass that is at once simple, inconspicuous and effective. In a word, it is the

"Quick Cleansing Kawneer"

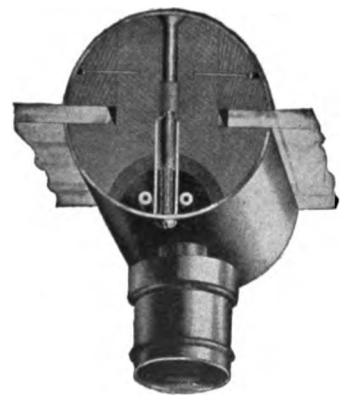
Catalog sent on request

Branches in all principal cities

Kawneer Mfg. Co.

123 Factory St., Niles, Mich.

National Store Front



The Most Brilliant, Beautiful and Graceful Front in the World

Pat. 1907

Minimum Light Space taken up
Maximum of Strength

Same contour and finish inside and out. All glass sets from outside. Low rate of insurance.

Absolutely Dustproof Construction

With Electric Light Fixture Combined

Every Glass Jobber in United States handles it. Write for Catalog and Prices.

National Store Front Co.

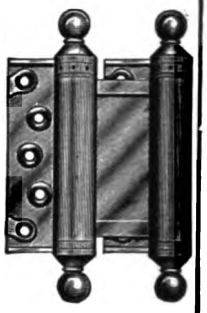
PITTSBURGH, PA.

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CHICAGO SPRING BUTTS

TRADE CSB CO MARK



"TRIPLE-END"

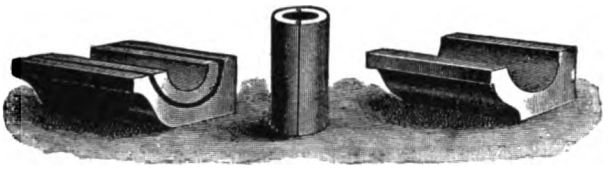
THE "CHICAGO" and "TRIPLE-END" SPRING BUTTS in their individual characteristic construction are adapted to all the requirements of automatic door operation.

Chicago Spring Butt Company

CHICAGO CATALOGUE ON REQUEST NEW YORK

CYPRESS GUTTERS

Once Used Always Used



SEND FOR CATALOG "H" AND PRICES

THE

A. T. STEARNS LUMBER CO.

Neponset, Boston, Mass.

Allsteel

Clothing Lockers



The architect, to satisfy the owner completely, should specify ALLSTEEL Lockers. First cost is whole cost—never need repairs, indestructible, even in severest use. Unitconstruction. Fireproof. Unaffected by dampness. Perfectly ventilated; absolutelysanitary. Finish of hard baked enamel, olive green or any specified color. Standard for use wherever locker equipment is required.



ALLSTEEL Locker Booklet AR, showing stock types, sent on request. Complete information on special lockers, on learning number to a row, whole number, size and style.

The General Fireproofing Co.

Youngstown, Ohio

Merritt Lockers

"EXPANDED METAL Or Sheet Steel Construction"

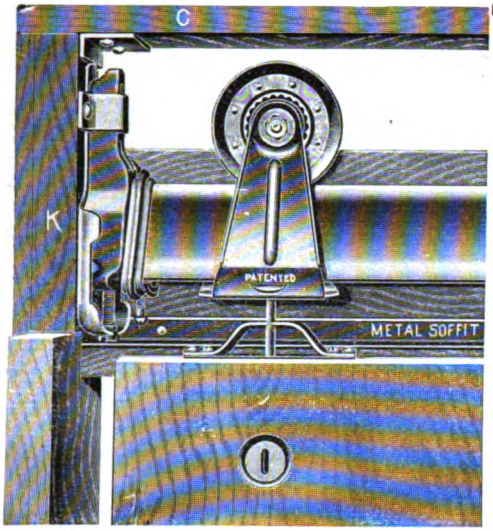
Every Merritt Locker, while perfect in itself, is but a unit of an indefinite number. Each locker has an individual top, shelf and bottom. All parts are made to gauge, therefore interchangeable. The flexibility of Merritt Lockers permits them to be arranged in groups, in rows or around the side of a room. At the same time they interlock firmly with one another.

Details of construction, illustrations of various types, our booklet, "Unit Steel Lockers," sent on request.

MERRITT & COMPANY

1007 Ridge Ave. Philadelphia, Pa.

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For Any Partition

In a single studded 6-inch partition —no thicker than those required for ordinary swinging doors, **regular sliding doors** of the best construction can be perfectly installed and faultlessly operated if fitted with the

PERFECT
Sliding Door Hangers

These hangers are unique in several ways and solve a troublesome problem for the architect and builder. Hanger and rail made entirely of steel. Rail supported *at ends only* —adjusted by *one* screw. Cannot sag. Ball bearing hangers—run easily and noiselessly and *cannot get off the track.* Simple to put in or remove.

Automatic Set used between pantry and kitchen, etc., operates the sliding doors by merely stepping on button—a great convenience in the modern home.

When specifying or installing sliding doors, architects and builders should have our special Architects' Booklet and particulars of the greatest improvement ever made in sliding door equipment. Send for it for future reference.

THE BRIDGEPORT HARDWARE MFG. CORPORATION, Bridgeport, Conn.

The Waterproofing Co.

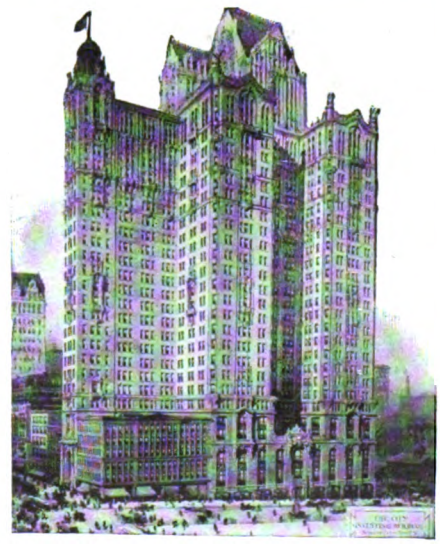
Boston **New York** **Pittsburgh**
147 East 35th Street

Engineers and Contractors for Waterproofing

The most important modern buildings in New York are waterproofed by our system of placing a visible cement coating upon interior surfaces.

The Hudson Terminal Building
The U. S. Express Co.'s Building
The German-American Ins. Co.'s Building
The Seligman Building

Write for pamphlet describing our Positive and Permanent Waterproofing.



THE CITY INVESTING BUILDING
Francis H. Kimball, Architect

Waterproofed exclusively with Hydrolithic Cement by The Waterproofing Co.

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The Northwestern Terra Cotta Company

MANUFACTURERS OF HIGHEST GRADE

Chicago Architectural Terra Cotta Illinois

O. W. KETCHAM

Burnt Clay Products

OF EVERY DESCRIPTION

Architectural Terra Cotta Works

CRUM LYNNE, PA.

See pages 114-115 "SWEET'S" INDEX

OFFICES:

NEW YORK
1170 Broadway

PHILADELPHIA
Builders' Exchange

WASHINGTON
Home Life Building

BALTIMORE
American Building

STANLEY'S

Ball Bearing Hinges

In Wrought Bronze and Steel

BEAUTIFUL
NOISELESS
STRONG

Artistic Booklet and Calendar Free

THE STANLEY WORKS
NEW BRITAIN, CONN.

79 CHAMBERS STREET NEW YORK CITY

See our catalogue in "Sweet's" Index

THE JAYCOX MFG. CO.

FISHKILL LANDING, N. Y.

Self Closing Blind Hinge

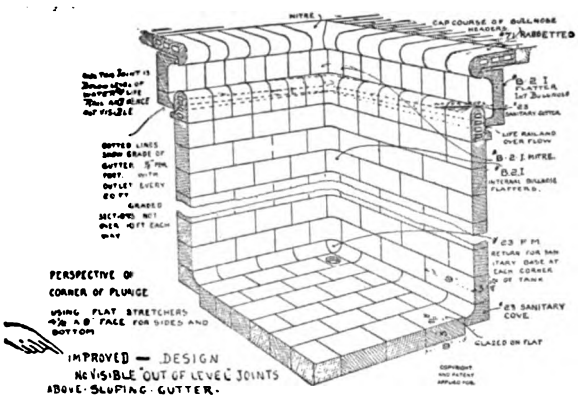
NEW SIMPLE

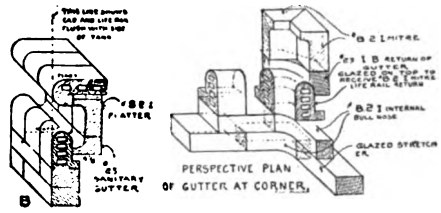
WHY THEY ARE THE BEST:

1st There is no noise from wind.
2d There is no slamming.
3d They can be closed without opening sash.
4th There is nothing inside to mar the woodwork.
5th They are strong; guaranteed not to break.
6th They are as easy to put on as any on the market.
7th They are inexpensive.
8th The blinds can be held in any position.

Correspondence with Architects Solicited

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What this Design Accomplishes

FIRST: A Complete and Efficient Surface Drainage System, which will remove **All Scum, Dried Skin, Saliva** and other **Floating Substances from Surface of Water** and **Prevent Accumulation of same on Side of Tank** where it usually collects; thus reducing the necessity for cleaning to a minimum.

SECOND: Collects all **Drippings** from bathers and **Dirt** from feet of observers **into Gutter instead of Tank.** Promptly removed by constant flushing of overflow over Life Rail.

THIRD: Affords a **Life Rail at Water's Edge** within easy reach of swimmer. Much more convenient and practical than festooned life ropes or rigid bronze railings far above water surface. This avoids the necessity for nervous or rattled swimmer to reach high out of water (thus helping to force his body under water) to get Life Rail.

FOURTH: The Life Rail is not an interference to diver, as is an extending metal Life Rail. Cap course can be made flush with Life Rail, if desired, by use of the inverted gutter, B-2-1 Flatter, as shown in section "B," and also on the general drawing. Life Rail and Cap Course can be tied firmly together by insertion of the tie rods into the hollow form of Cap and Life Rail unit.

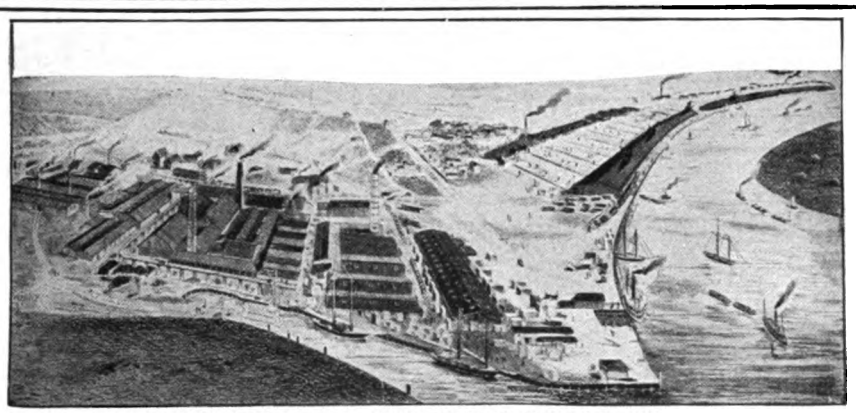
FIFTH: Our Life Rail is a help to swimmer in getting out of tank, not a hindrance, and gutter affords a convenient place for swimmer to expectorate.

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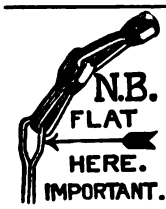
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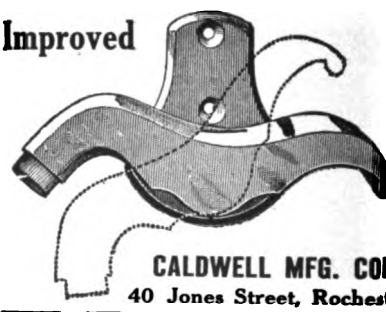
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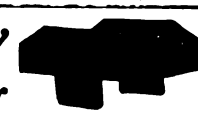
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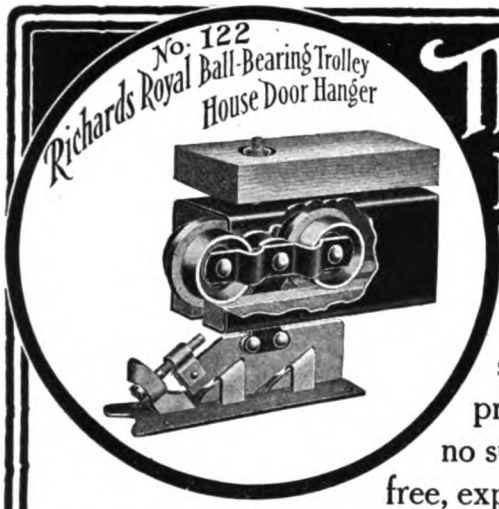
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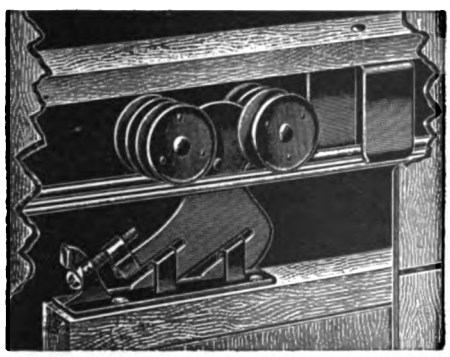
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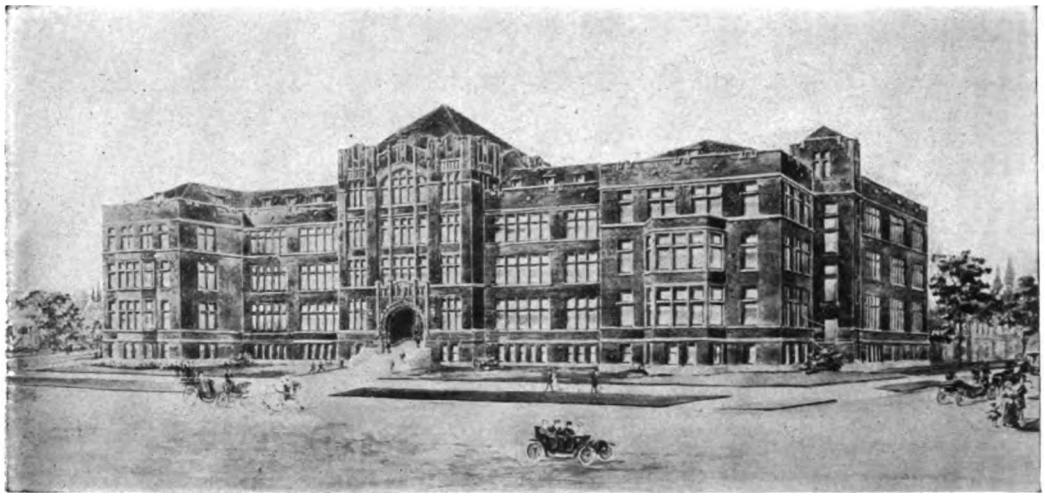
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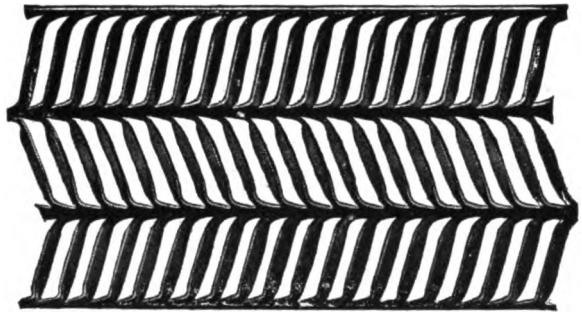
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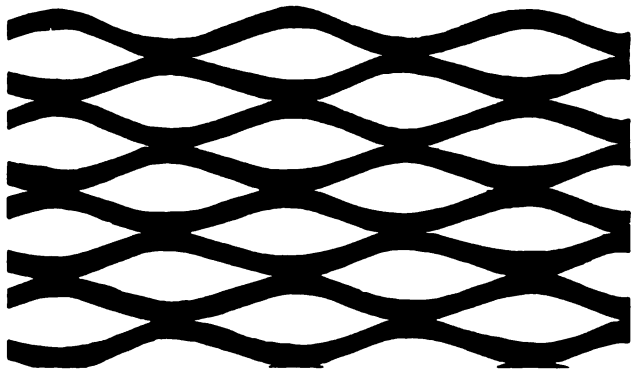
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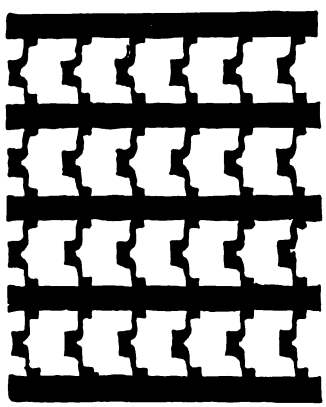
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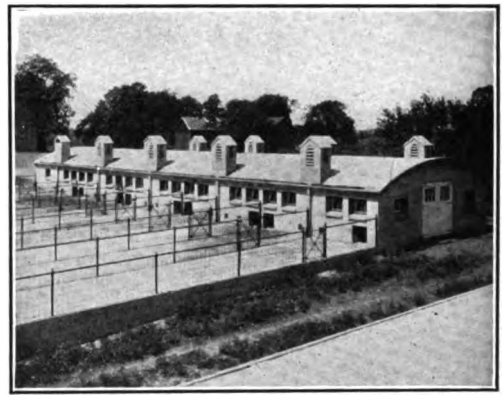
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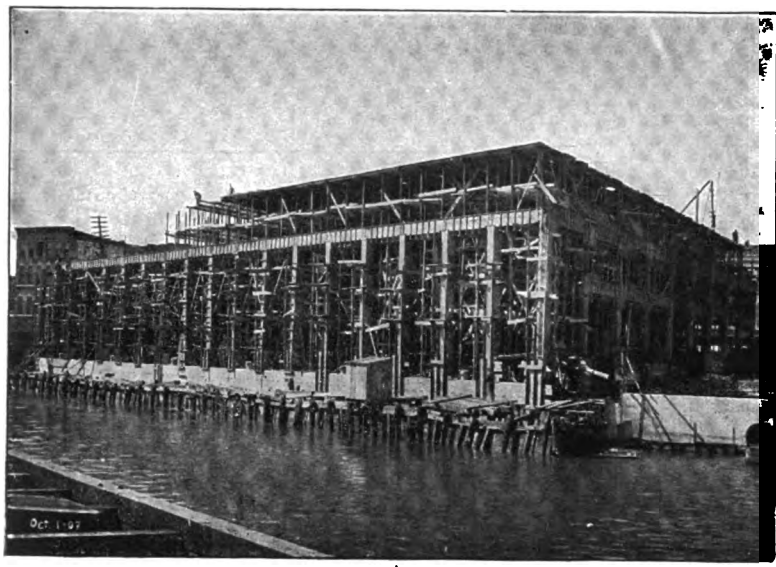
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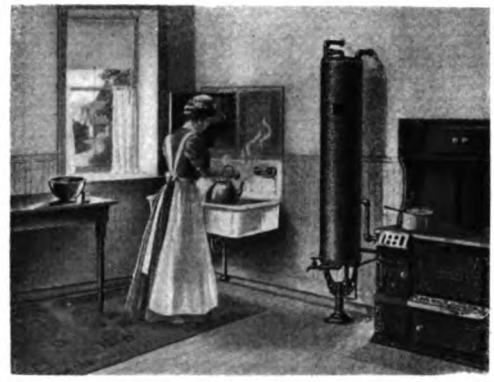
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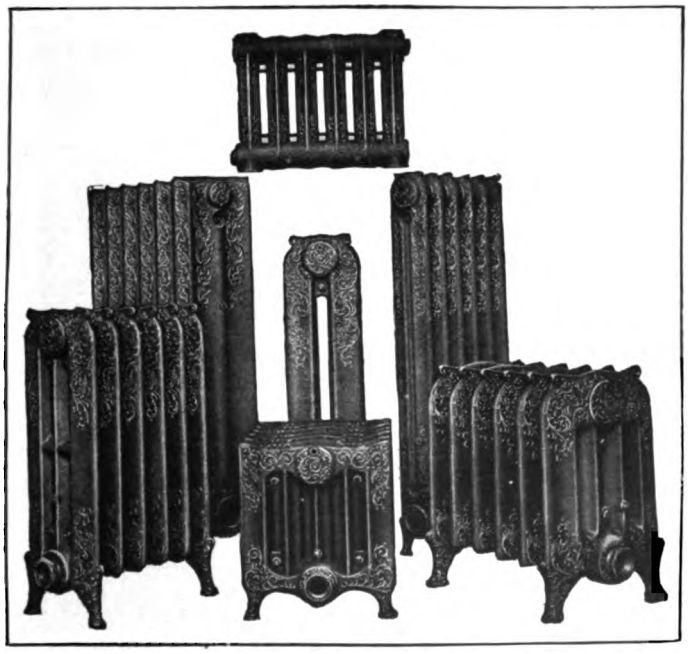
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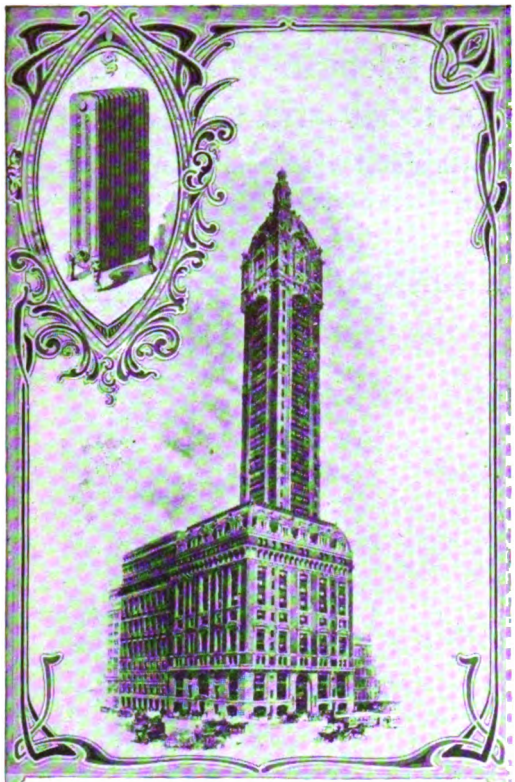
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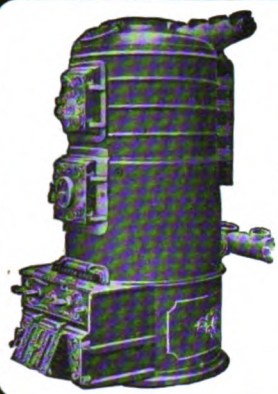
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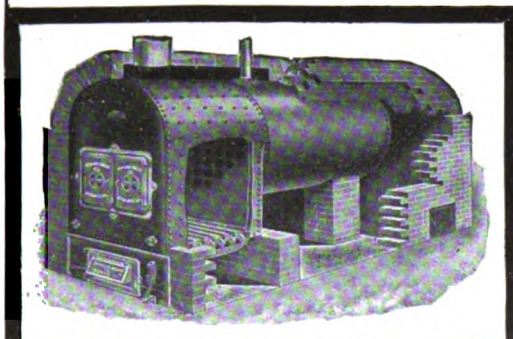
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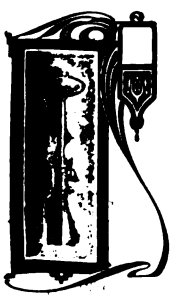
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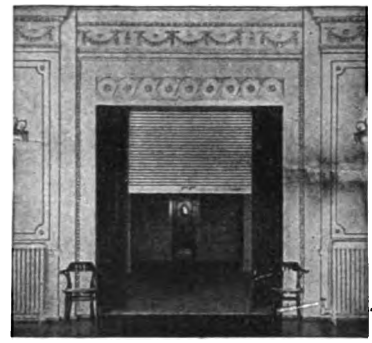
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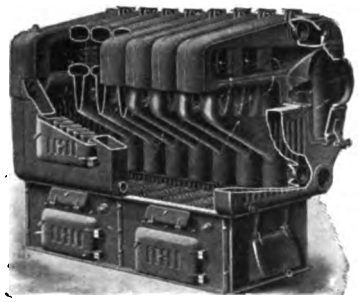
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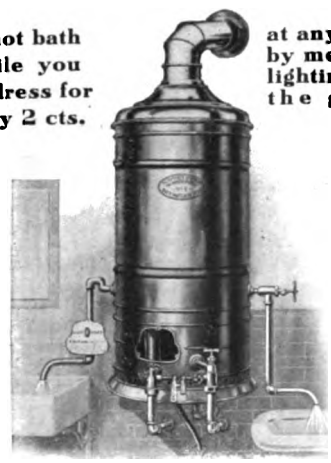
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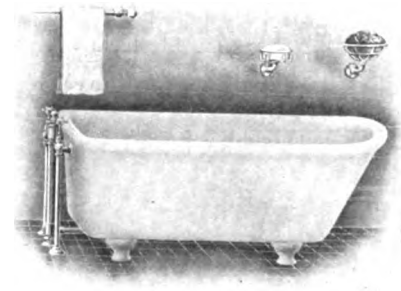


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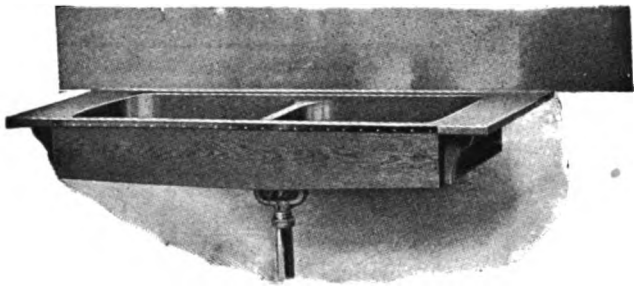
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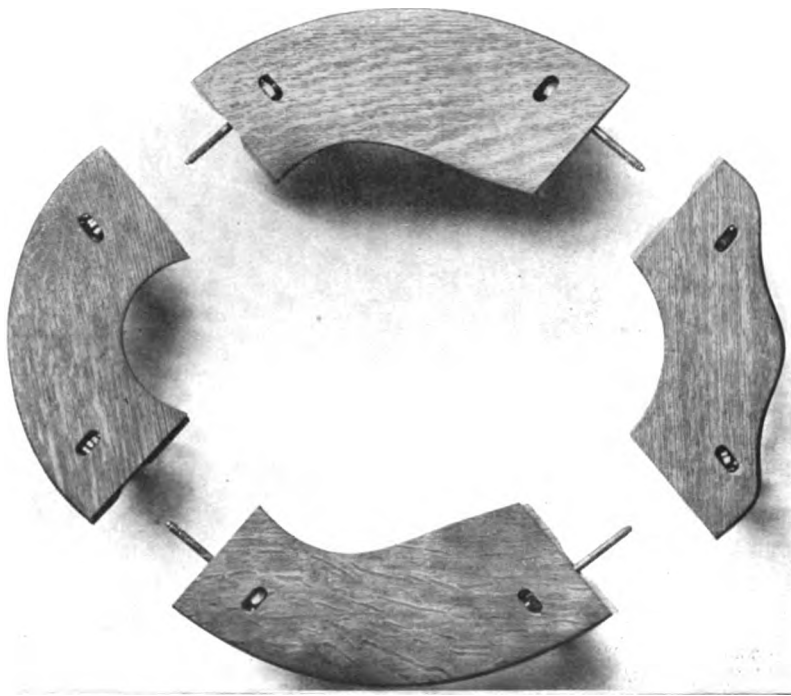
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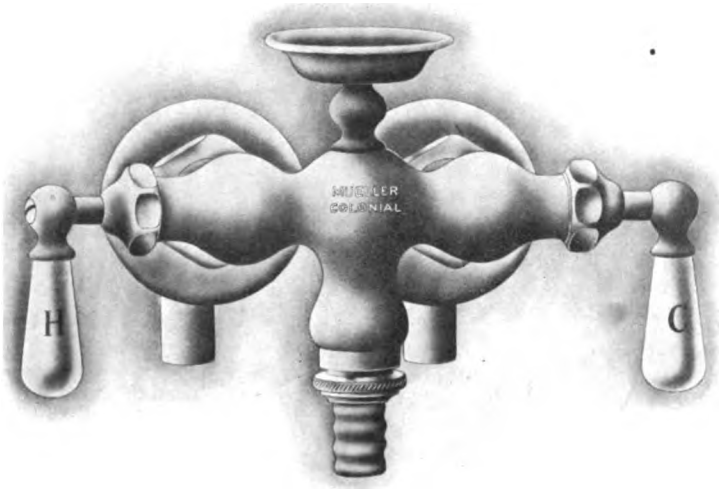
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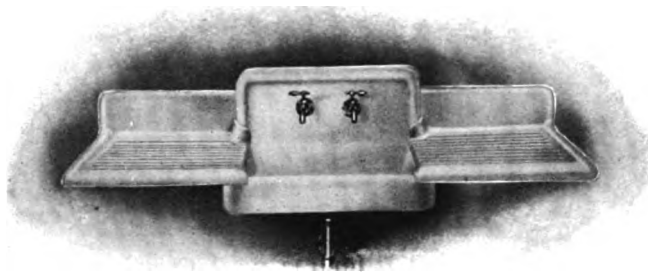


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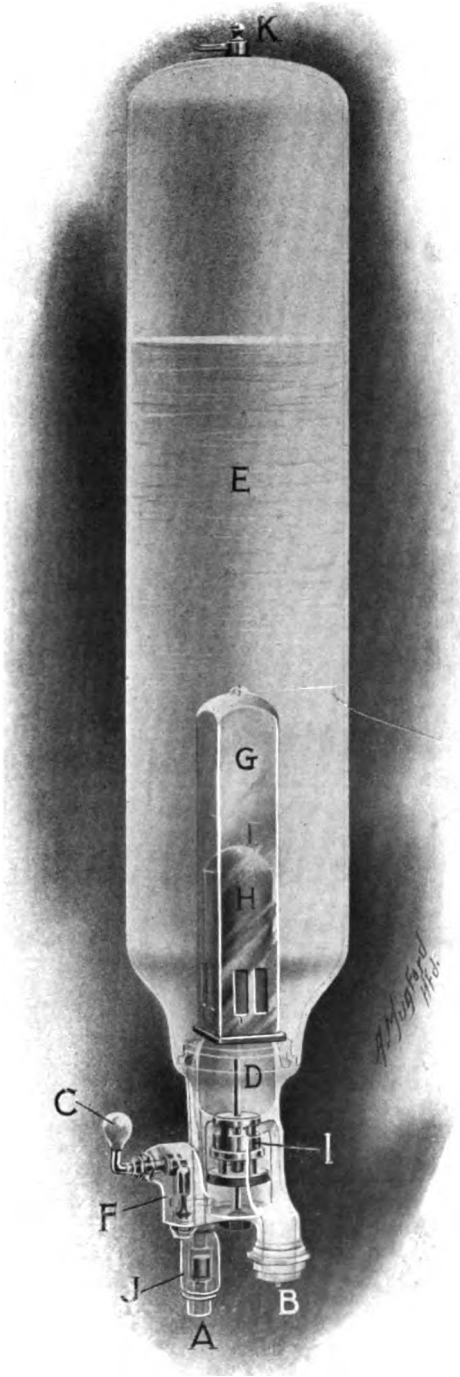
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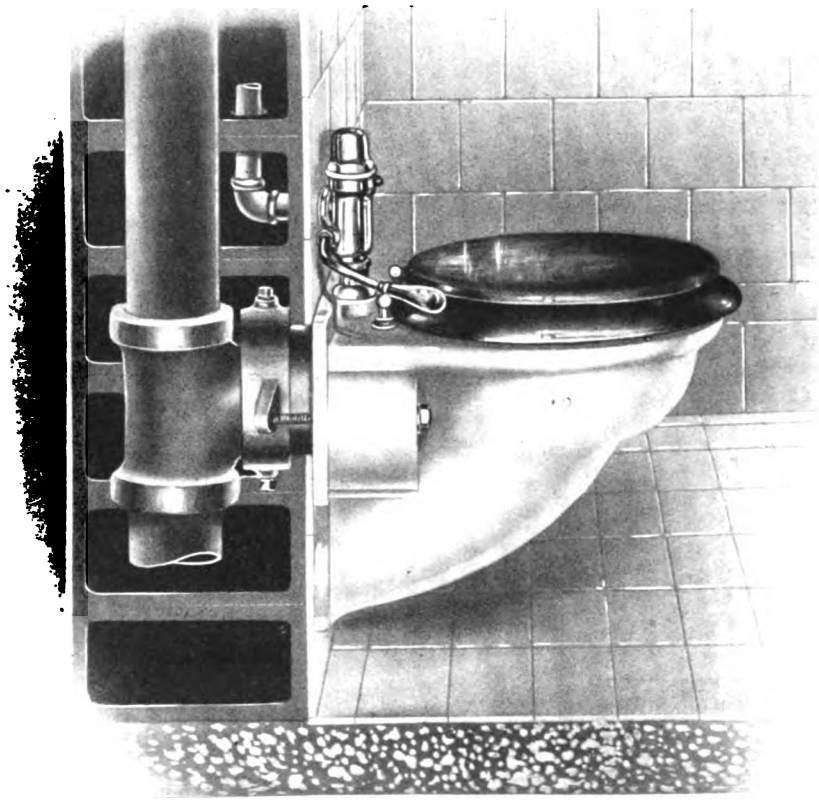
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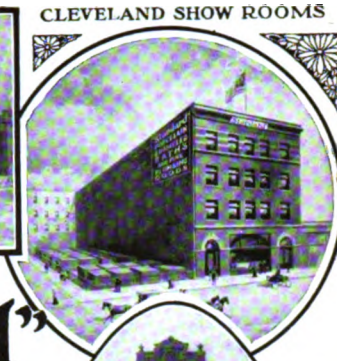
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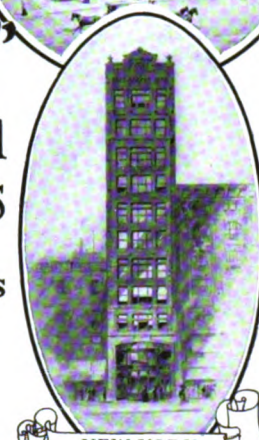
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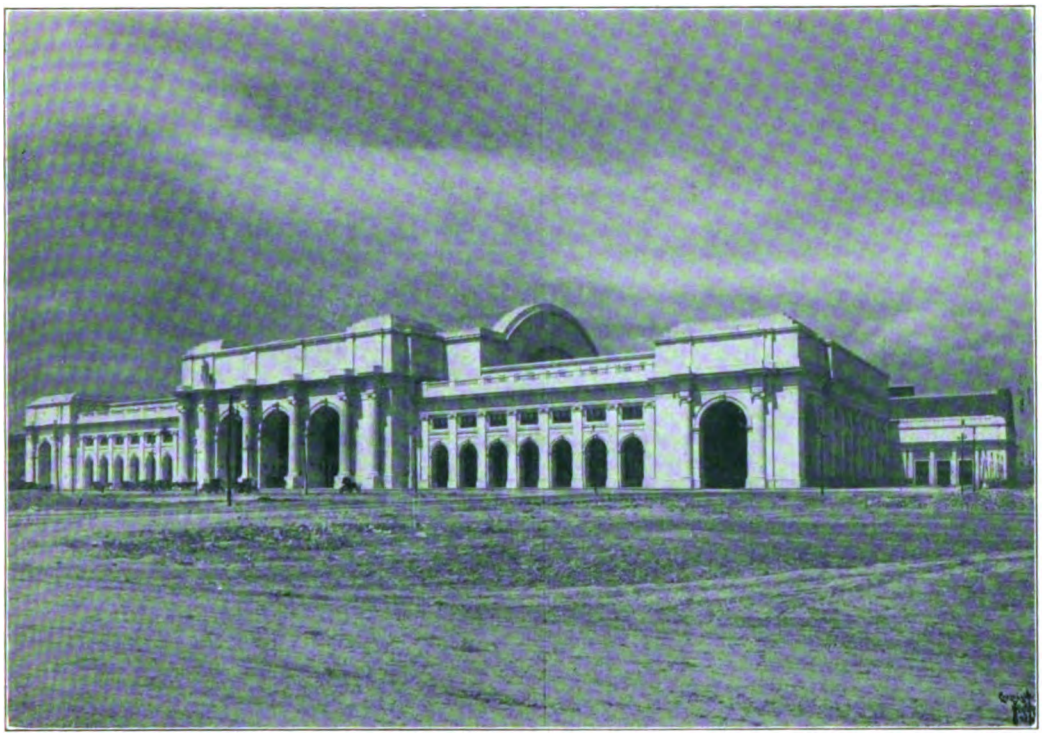
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See Sweet's Index, 1907-08 edition, pages 108 and 110.

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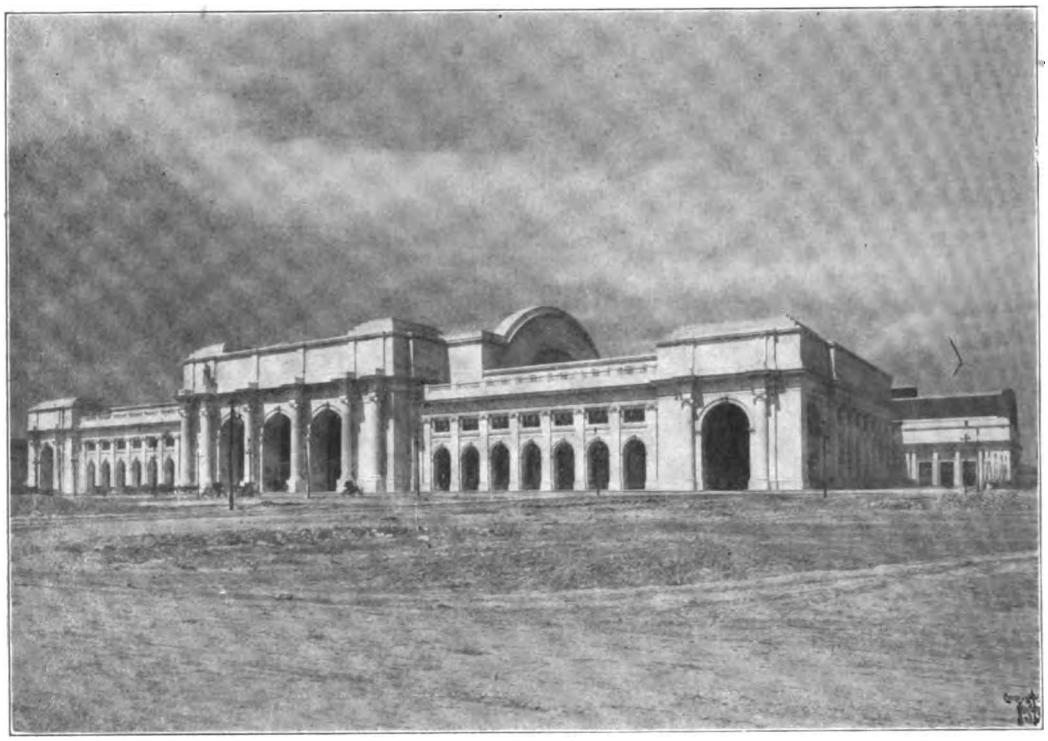
SEPTEMBER

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NEW YORK

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See Sweet's Index, 1907-08 edition, pages 108 and 110.

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A No. 22 IDEAL Boiler and 240 ft. of 38-in. AMERICAN Radiators, costing the owner $112, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.



A No. 3-22 IDEAL Boiler and 600 ft. of 38-in. AMERICAN Radiators costing the owner $280, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.



A No. C-243 IDEAL Boiler and 750 ft. of 38-in. AMERICAN Radiators, costing the owner $350, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

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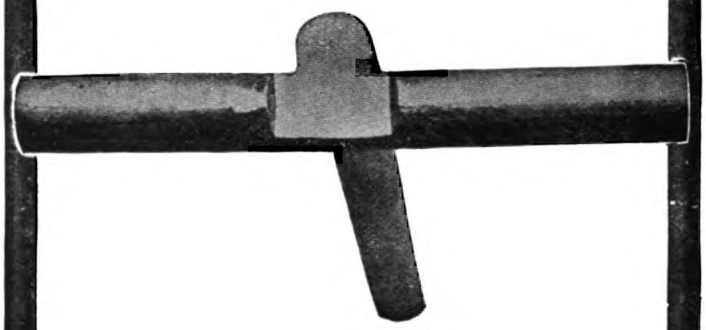
A No. 015 IDEAL Boiler and 175 ft. of 38-in. AMERICAN Radiators, costing the owner $116, were used to Steam-Heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

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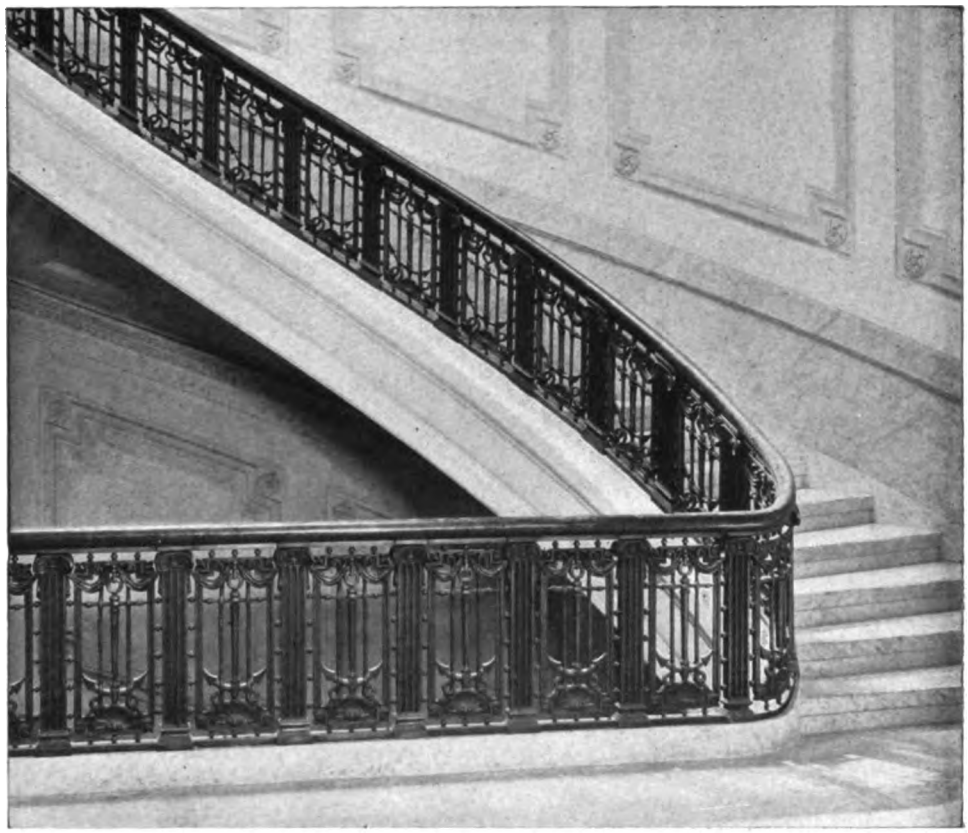


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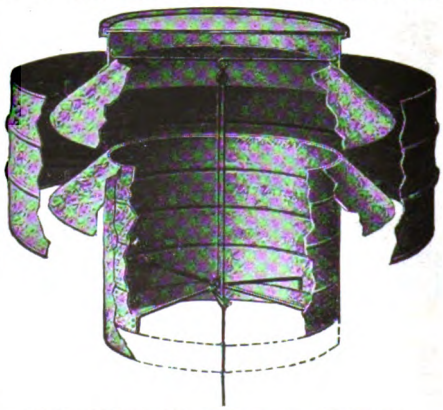
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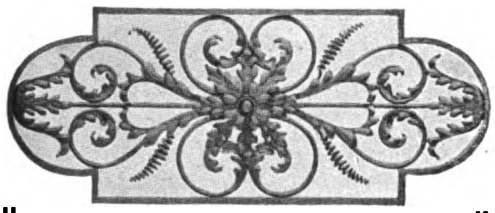
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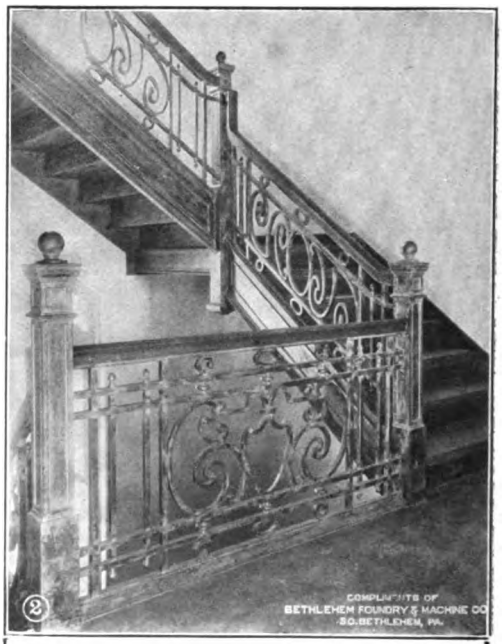
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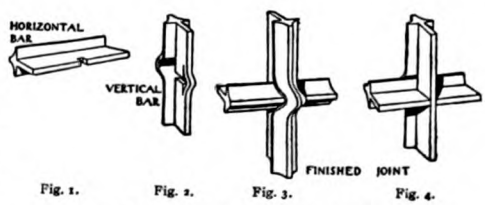
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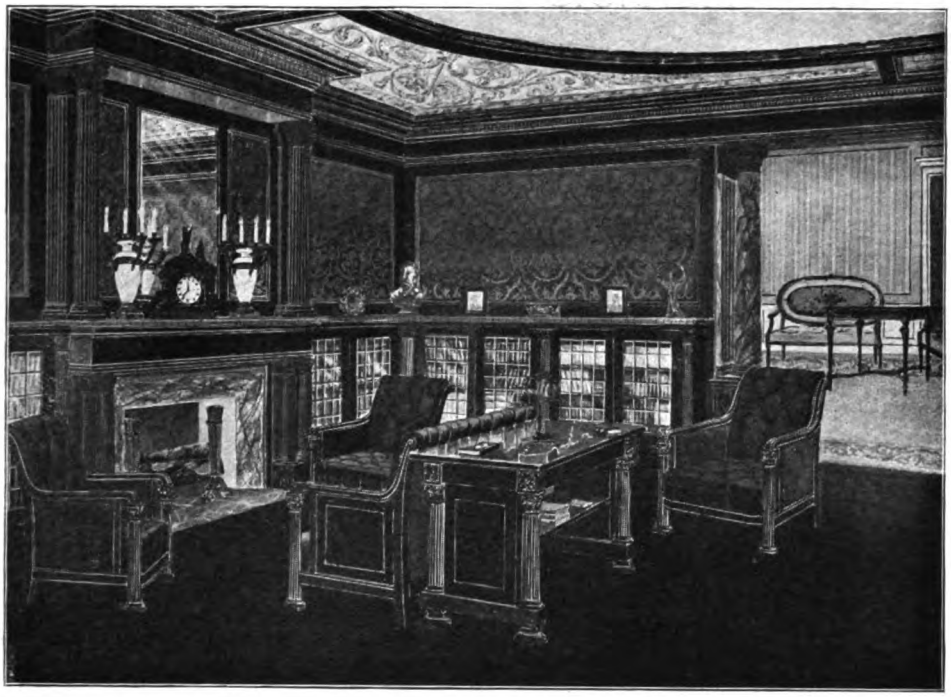


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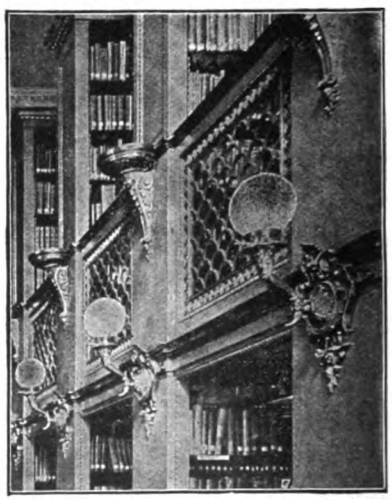
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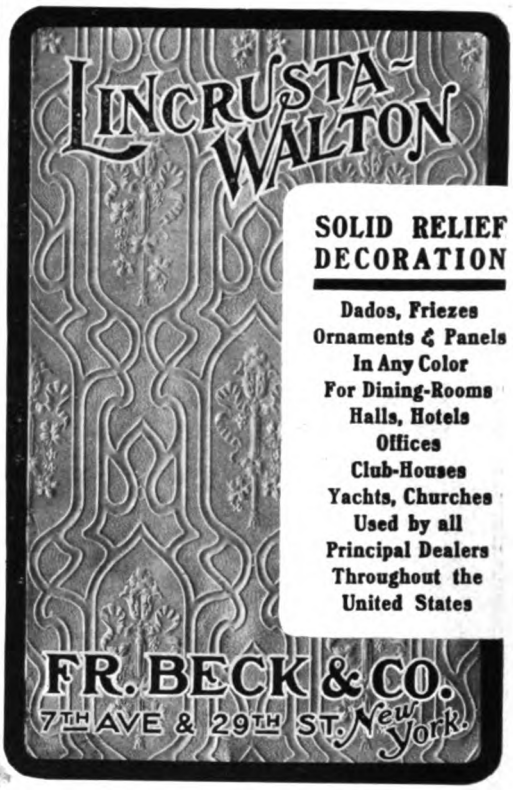
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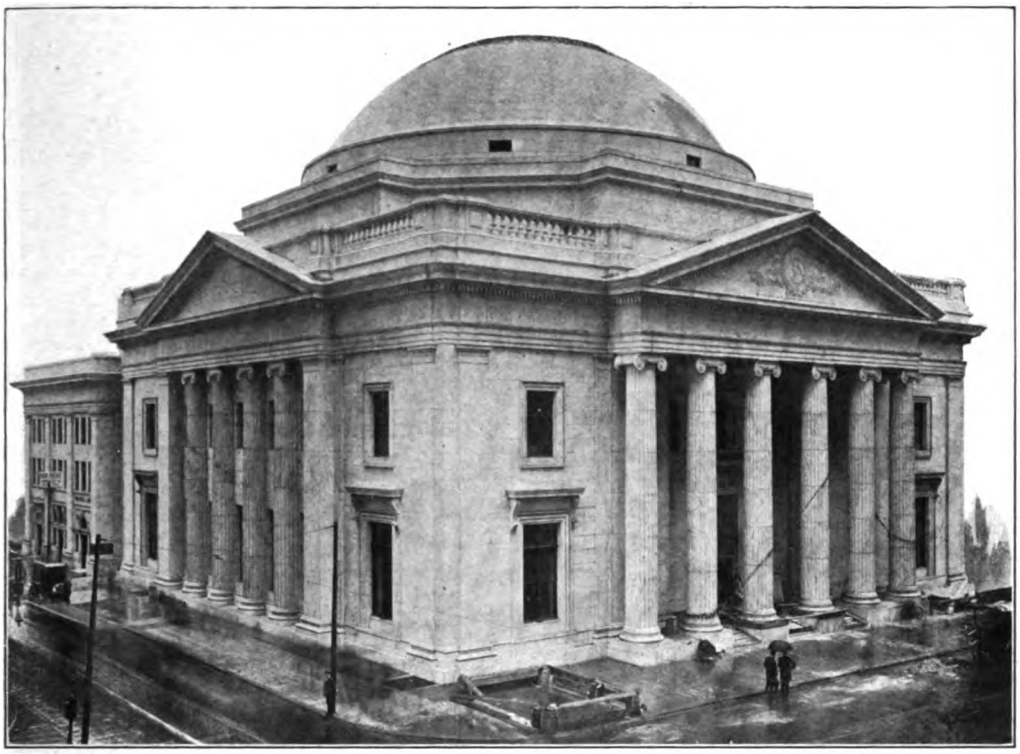
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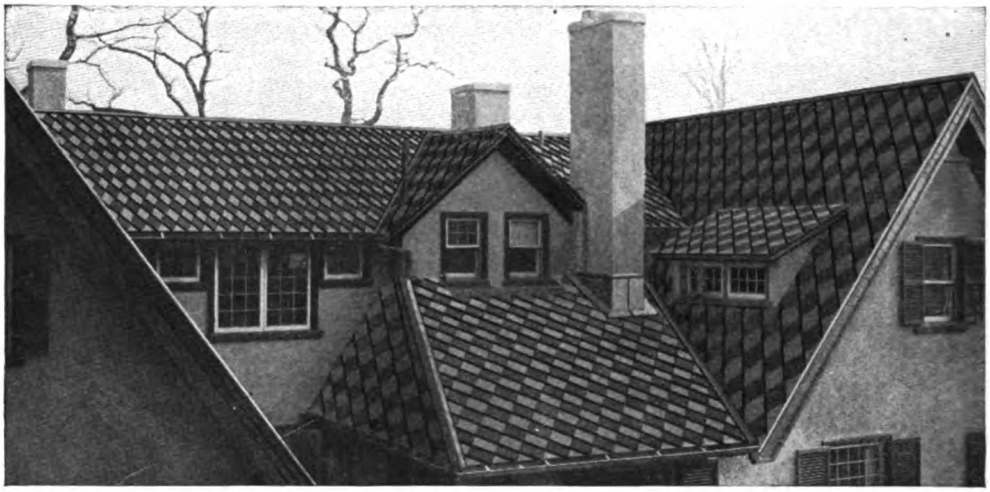
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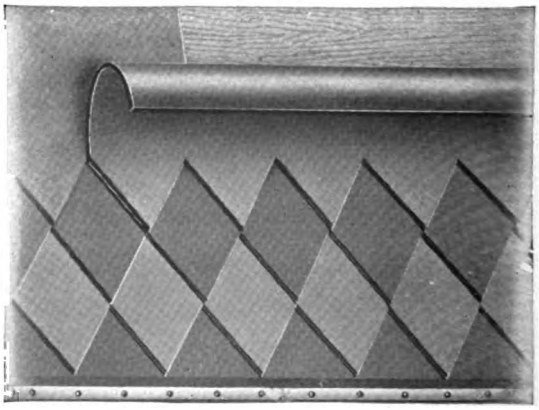
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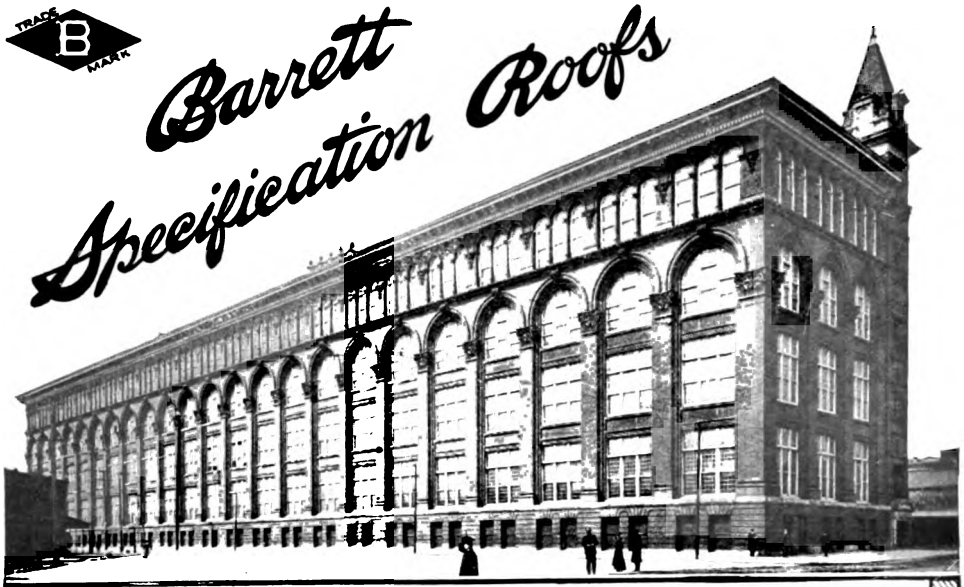
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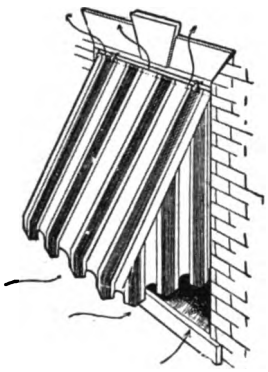
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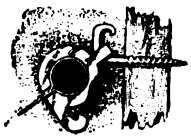
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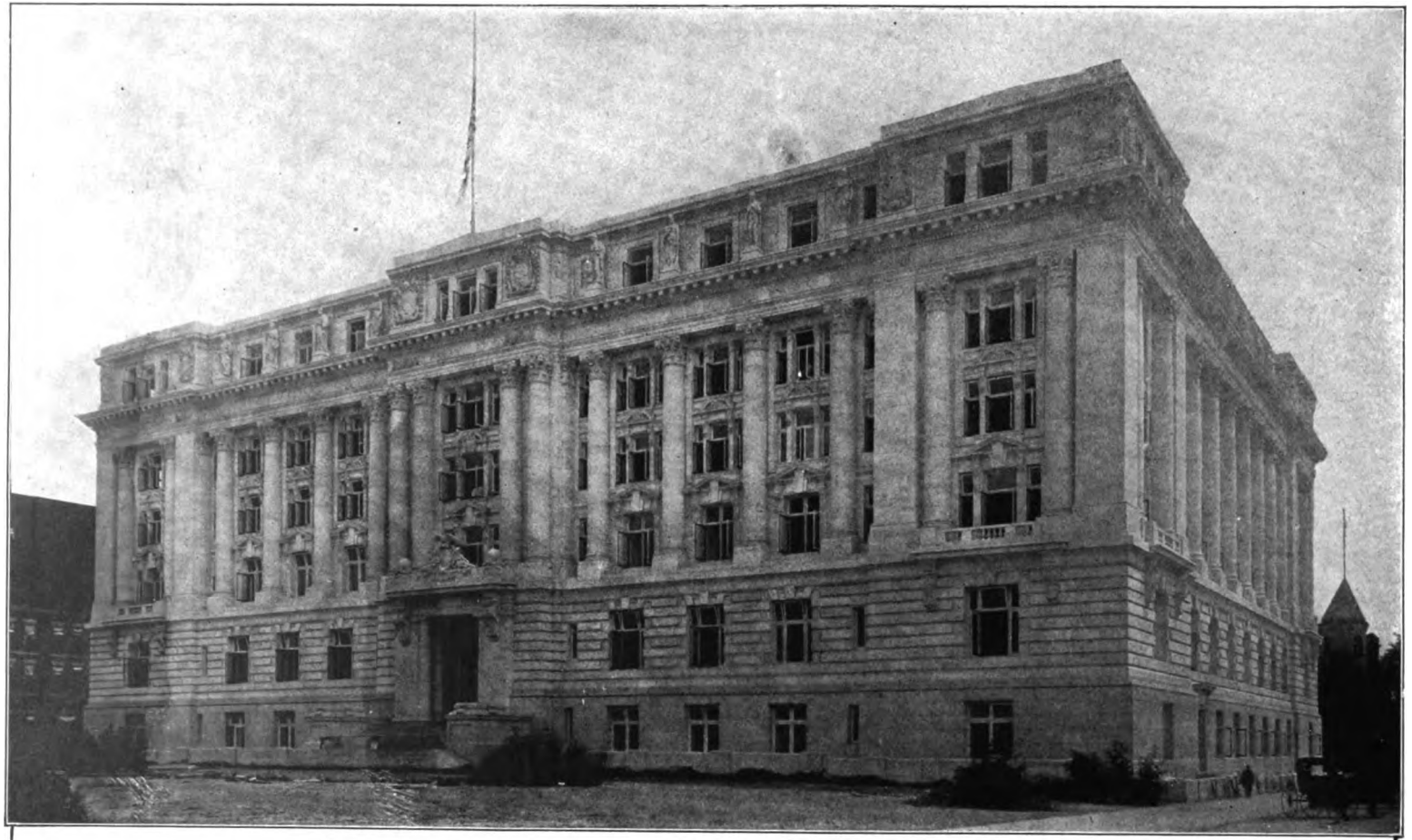
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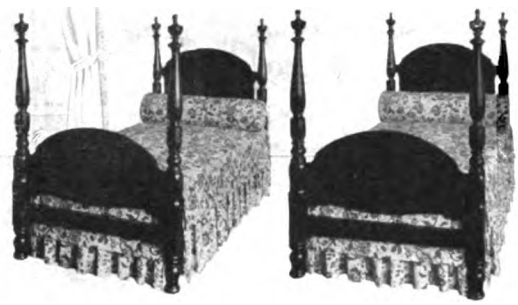
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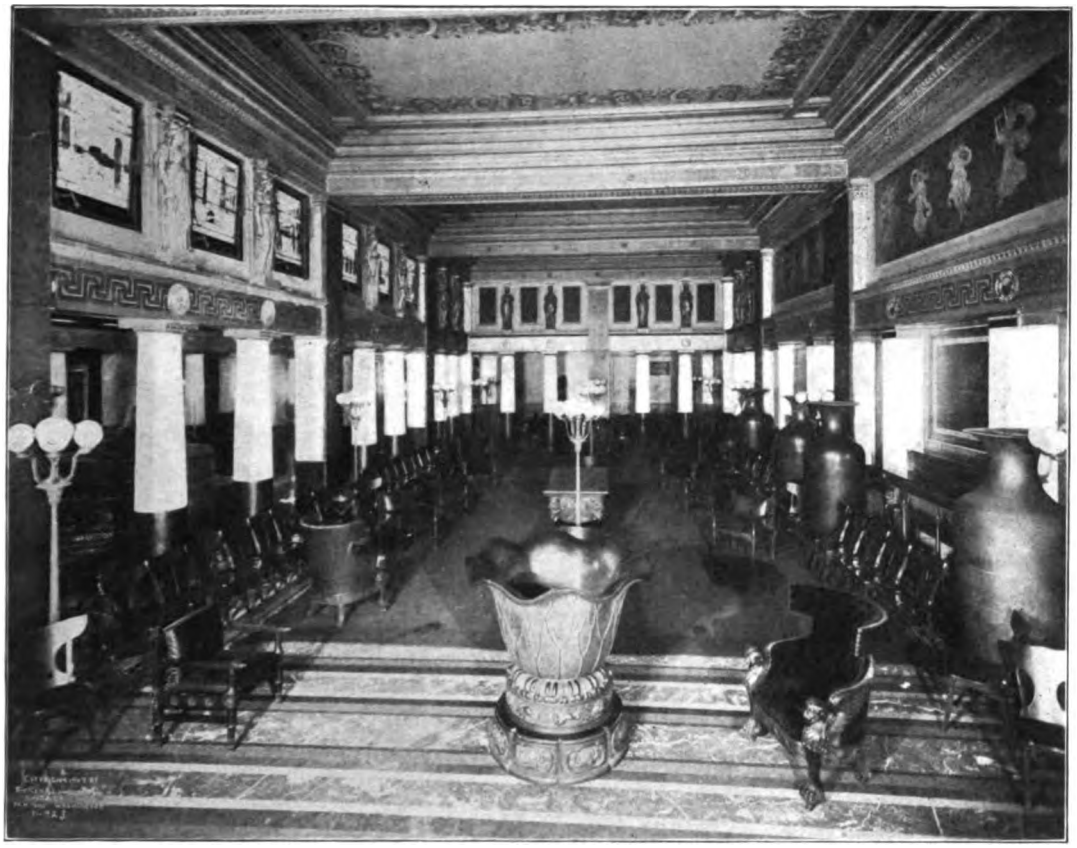
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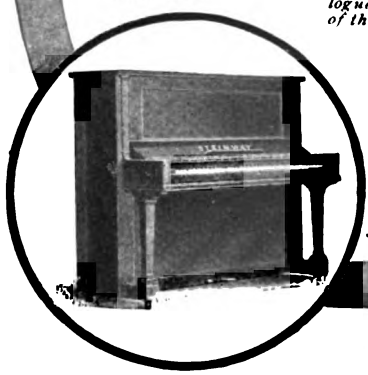
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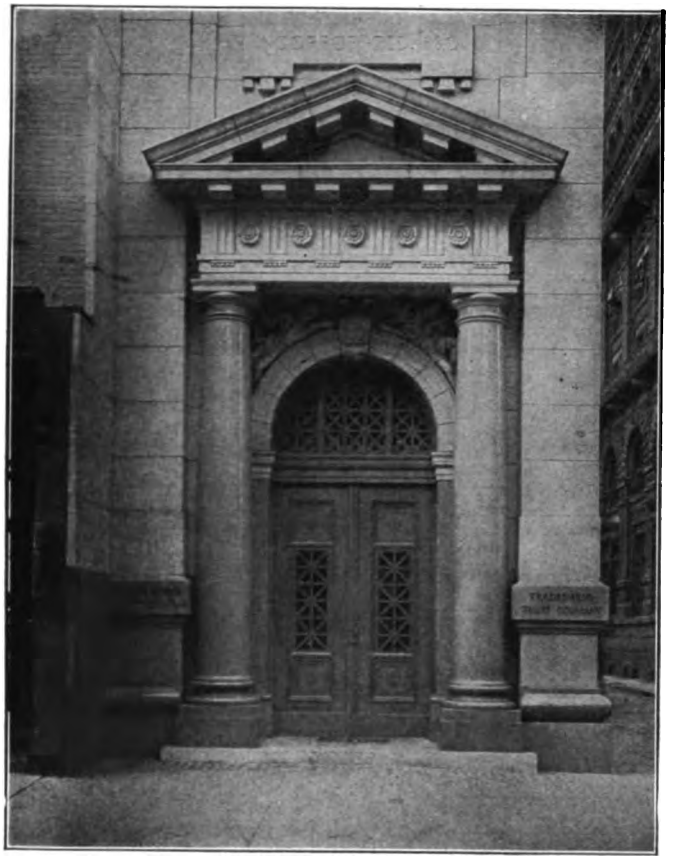
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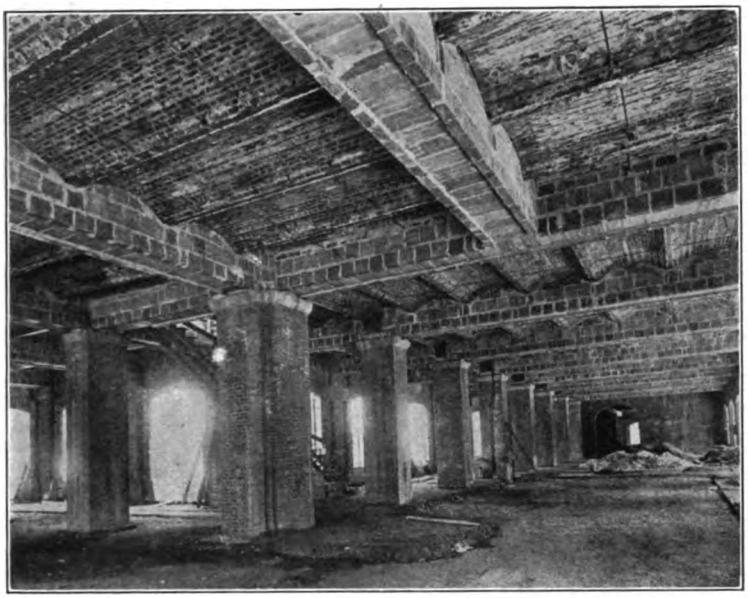
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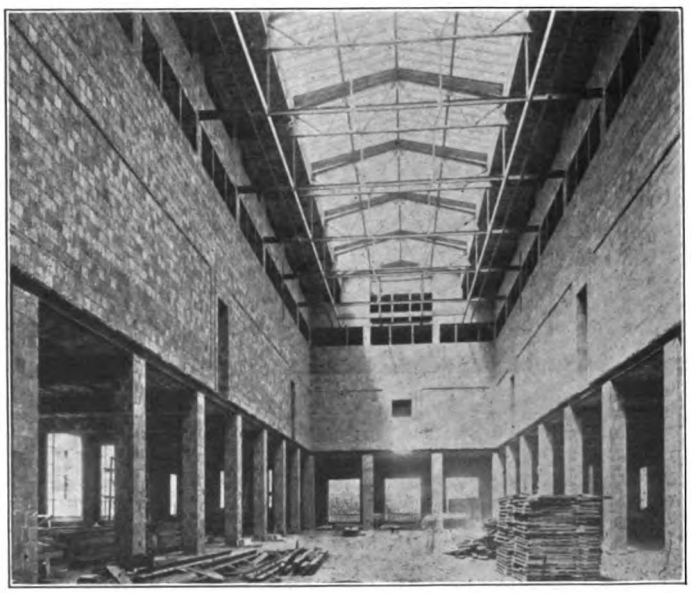
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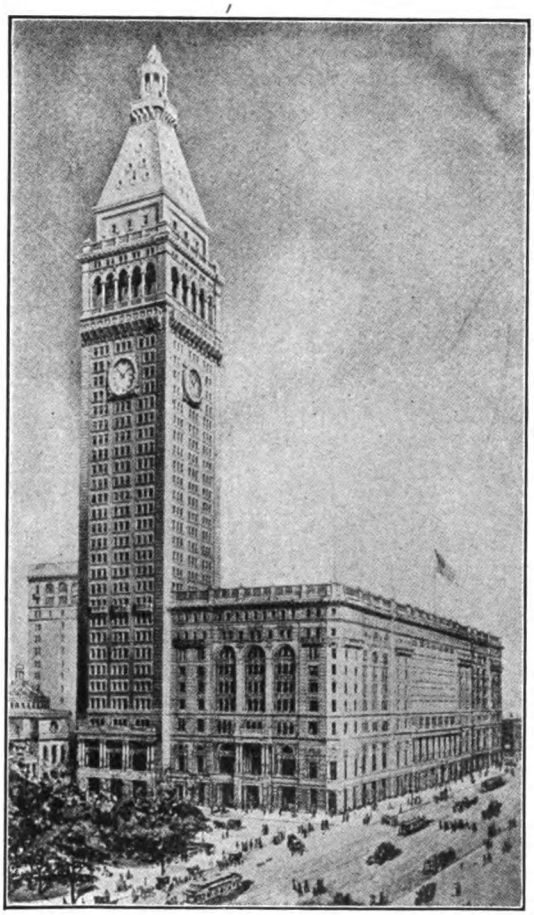
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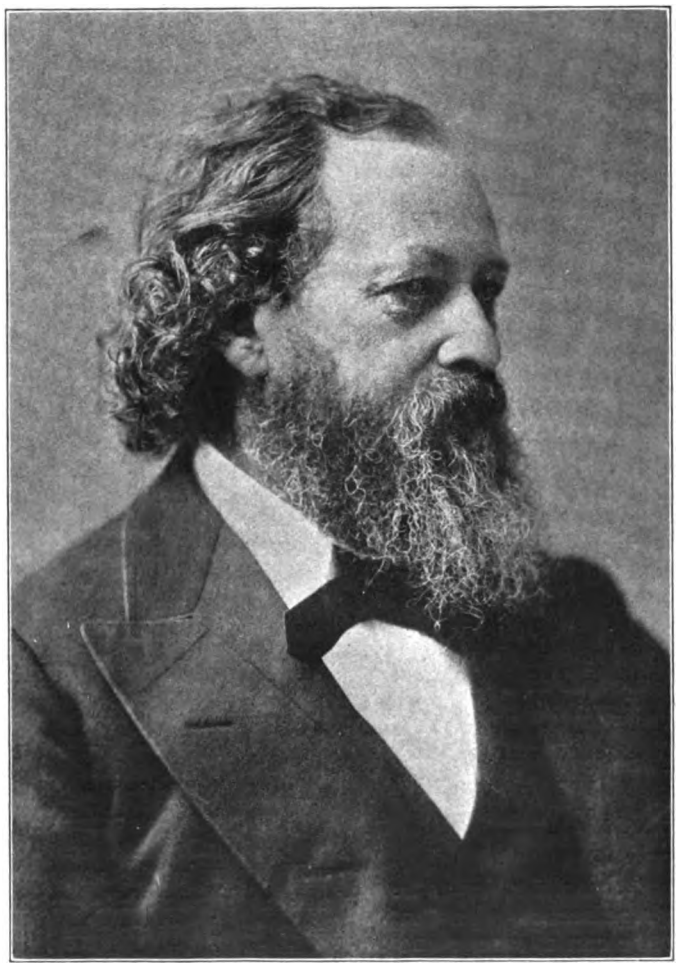


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Leopold Eidlitz.
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A Great American Architect: Leopold Eidlitz

I.

Ecclesiastical and Domestic Work

Leopold Eidlitz died in New York, March 22, 1908, having for a year and a half, since the death of Frederick Diaper, enjoyed, or at least held, the melancholy distinction of the "dean" of his guild in New York, and probably in the United States. His active career, from the building of St. George's, in 1848, covered almost half a century—an active and fruitful half-century in the history of American architecture. He might almost have said, paraphrasing Grattan on the Irish Parliament, that he had rocked the cradle of the Gothic revival and that he had followed its hearse. The time when he began was the time when the Gothic revival was beginning to enlist most of the intellect and a still larger share of the enthusiasm of American architects, as it continued to do for many years. Counting in the Romanesque with the Gothic revival, one may say that it lasted for a full generation. It is a rather pathetic proof of the desuetude, innocuous or otherwise, into which it has fallen, that Professor Hamlin, enumerating, in the Architectural Record the other month, the best-deserving of American architects, quite forgot to include the name of Upjohn, whom, just about a generation ago, the "American Architect," then at its beginning, acclaimed as "the Father of American architecture."

> **Vixere fortes ante Agamemnona**
> **Multi; sed omnes illacrimabiles**
> **Urgentur ignotique longa**
> **Nocte.—**

Let the present chronicler, far as he is from Horace's requirement of a "vates sacer," do what he can to rescue one of them. At least a survey of a career so typical ought to have its interest.

* * *

Mr. Eidlitz was born in Prague, March 29, 1823. He never forgot his birthplace. Reminiscences of the Moldau kept recurring in his work by the Hudson. As the towers of the Dry Dock Savings Bank and of the Clergy House of St. George's and such lesser erections as the "institutional" top of a commercial building survive to attest, he remembered, "super flumina Babylonis," the picturesque "Pulverthurm" and the picturesque bridge head of his native city, even though combined with reminiscences of the Nassauerhaus in Nuremberg. These things came back to him as admissible motives in far different erections. His schooling, after he had outgrown the available facilities of Prague, was transferred to the Vienna Polytechnic, but it was not yet a distinctly architectural education. There is and long has been a specially close connection in Vienna between the science and the art of building, elsewhere so harshly divorced to their mutual disadvantage. There the "Society of Architects and Engineers" is a single institution. Certainly no builder of our times has striven more earnestly and persistently than Mr. Eidlitz to reunite the two, as they were united in the Middle Ages, to base architecture upon science and to infect engineering with art. But he did not resort to Vienna to study architecture. He was destined or had destined himself to the calling of a landsteward, within whose jurisdiction might come the erection of sundry humble and utilitarian classes of buildings called for in the administration of an estate. It was while engaged in learning how to do these that his imagination took fire at the possibility opened before him of doing worthier and larger things.

From the time when this possibility opened upon him, he was already in intention an architect. He was not yet quite come to his majority when, in 1843, he landed in New York, and he

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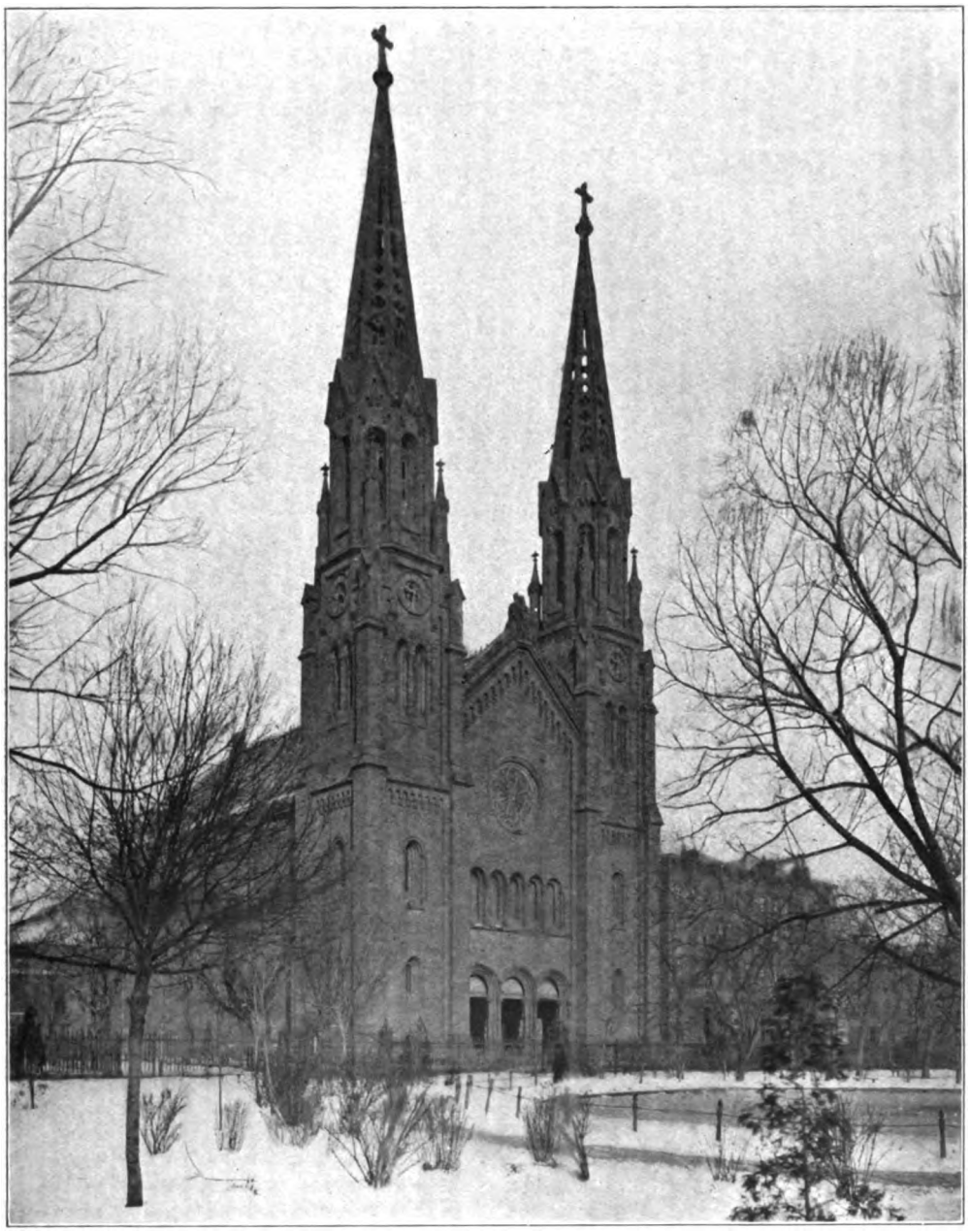


FIG. 2. ST. GEORGE'S CHURCH, 1848.
Stuyvesant Square, New York. Blesch & Eidlitz, Architects.

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hastened to offer his draughtsmanship to the local architect whose work most appealed to him. Necessarily, in view of his endowment and his equipment, this was Richard Upjohn.

Trinity, the first and still so far from the worst of the monuments of the Gothic revival, was already well under way, and the drawings for it all done, but the young Bohemian found some work in the office of the Anglican architect. He could not in any sense be described as Upjohn's pupil. He never assimilated the "Anglican" architectural tradition. But he never, to the day of his own death, ceased to regard his first and only American "patron" with affectionate veneration. The employment was not of long duration, for a "Gothic" opportunity presented itself in the new St. George's, migrating from Beekman Street to Stuyvesant Square, and the firm of Blesch and Eidlitz, a young Bavarian and a young Bohemian, was formed, very likely "ad hoc." I think they did nothing else together, and their co-operation in this did not go beyond the preparation of the drawings. As to these, the junior partner long afterwards declared that it was difficult to apportion the credit. "The exterior was mainly his, the interior mainly mine." But the senior partner fell ill and was disabled almost immediately, and the work was entirely executed under the superintendence of the junior, who was the only architect of the church recognized by its authorities and in relation

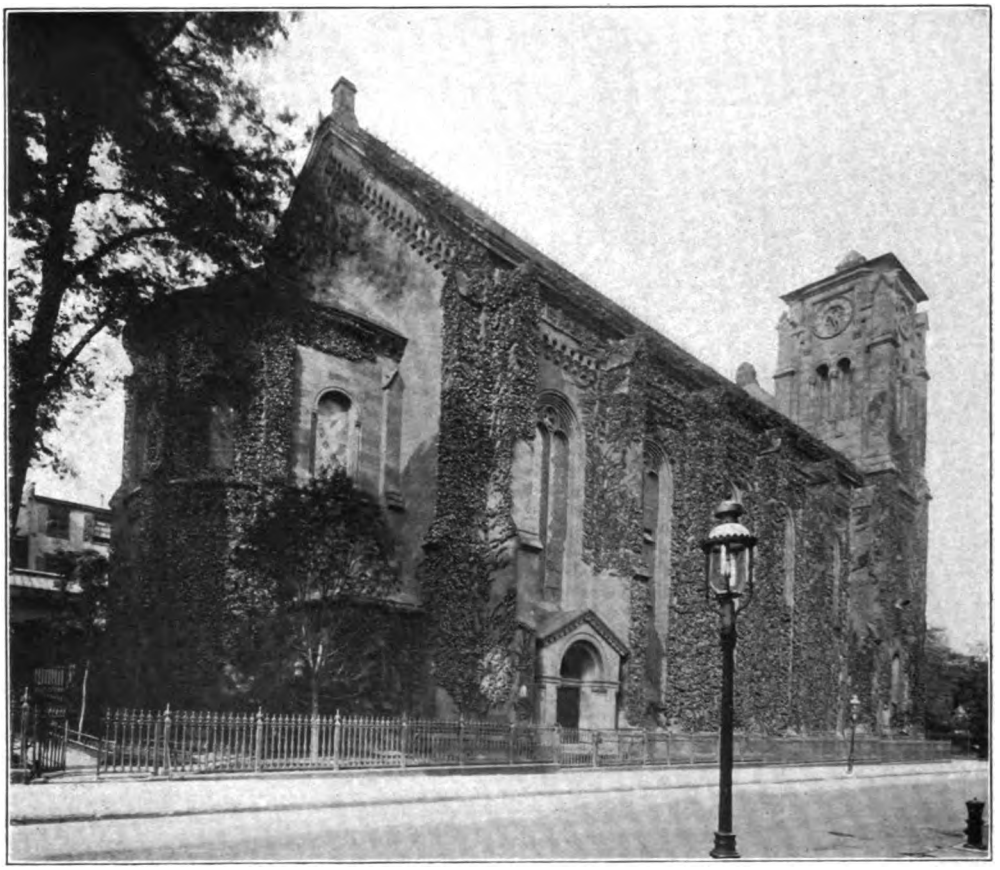


FIG. 3. ST. GEORGE'S CHURCH FROM THE REAR.
Stuyvesant Square, New York. Blesch & Eidlitz, Architects.

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with them. But without doubt the brief association was of great advantage to him. Blesch, a Grand Prix of Munich, had the regular architectural training which the junior partner lacked, but the results of which his eager and studious mind soon absorbed. Both partners were penetrated with enthusiasm for the South German phase of the Gothic or more properly the Romanesque revival. Evidently enough German the result of their labors was, and in sharp contrast to the Anglicanism of Trinity. Evidently successful the result still is, though the front has long since lost the open spires which were its crowning ornament, and which were taken down some twenty years ago, after a fire which had compelled the reconstruction of the interior. (Fig. 2.) A spire of any kind in solid masonry was rare enough in New York sixty years ago. Very likely Trinity offered the only other specimen. But the slender crocketed cone of Trinity was a familiar and well-precedented form, compared with these bold skeletons of stone. The rear is quite as successful in its way as the front, after the form so copiously precedented in the parent style, though the immediate prototype appears to be the apse of Trier. (Fig. 3.) The sides, on the other hand, suffer from a monotony which seems to have been entirely avoidable. The simple "hallenartige" lay-out of the interior as a large undivided room, besides being economical, may very likely have been due to the insistence of the rector that it should be "evangelical." For Dr. Tyng was an insistent "evangelical," to whom a church was primarily a meeting house, a place in which to preach and to be preached to, or even at. Long drawn



FIG. 4. INTERIOR OF ST. GEORGE'S CHURCH.
Stuyvesant Square, New York. Leopold Eidlitz, Architect.

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aisles and fretted vaults did not conduce to this function, nor perhaps the transepts which his architect never willingly omitted from any subsequent church. Moreover, they were objectionable as savoring of Popery, as very likely the nave and aisles of Trinity savored in his mind. His architect used long afterwards to tell how he insisted that his "communion-table" should not be mistakable for an "altar." "Make me a table, do you understand, a table that I can walk around and see under." Especially the good Evangelical had no more use for supports encumbering the floor and obstructing vision than he had for storied windows richly shedding a dim religious light, and would not have such in his meeting house. As a result he got, as the church was originally built, hanging galleries supported by bracketing anchored into the buttresses, though, as reconstructed after the fire, slender posts were substituted for the brackets (Fig. 4). As first built, these galleries, which were of Mr. Eidlitz's devising and design, constituted an interior feature as novel and startling in its way as the exterior feature of the open spires. But these galleries were of such importance that they really demanded exterior expression by a subdivision of those tall undivided windows of the flank which entail upon it its monotony. Evidently the monotony would have been relieved effectively by a subdivision of the windows, with a double or even a single opening under the gallery and the undivided window above it. Such a division would have removed the chief architectural blemish on what is and would be even with worse faults, one of our most seemly and dignified New York churches, inside and out.

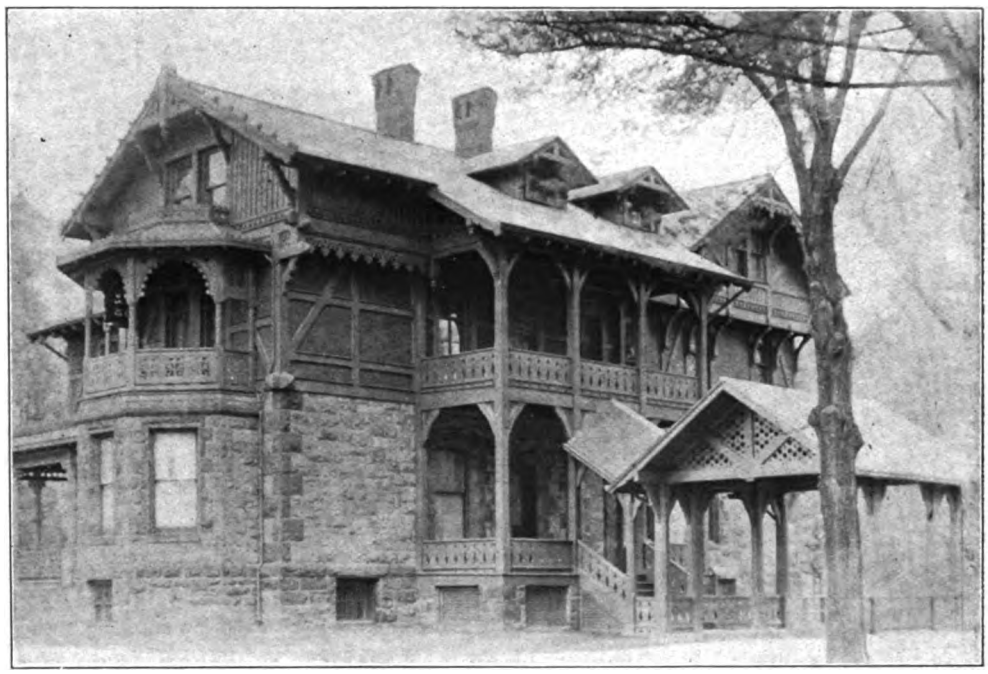


FIG. 5. COTTAGE AT ENGLEWOOD, NEW JERSEY (ABOUT 1860).
Leopold Eidlitz, Architect.

* * *

The popular success of St. George's was immediate and striking and with that success the young architect found himself fairly launched as a Gothic practitioner. In 1850 and for years afterwards, to be a Gothic architect was to be a church architect. Richard Upjohn himself, the pioneer of Gothic, when he

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had a secular building to do, as in the old Trinity Building and the old Corn Exchange Bank, lapsed into some mild and discreet mode of the Renaissance. But nobody ever accused Leopold Eidlitz of lacking the courage of his convictions. "Gothic," he used to maintain, "is adequate to every expression," and he strove to "make it so." I remember Joseph Sands, of Renwick and Sands, whereas in the former you had a building with architecture adjoined to it, "in true Gothic, so long as you find two stones together, you find architecture." But in those earliest days, he found no client to help him realize his dreams, and perforce did churches. He did some thirty of them, more, he mentioned once, than he did houses. In those days, indeed, hardly anybody thought of



FIG. 6. COTTAGE IN NEW JERSEY (ABOUT 1860).
Leopold Eidlitz, Architect.

himself a convinced Gothicist and author of such a home of ritual as St. Alban's, saying to him, "I don't believe you could design a Corinthian capital." The rejoinder, though but of a word, cannot be done justice to without capitals—"DESIGN!" And, in one of the discussions with Richardson to which I was privileged to listen, he designated the essential difference between classic and mediaeval work by saying that invoking an architect for a city house. Almost everybody was content with a ready-to-live-in habitation. It was only in suburban and country houses that the architect came in at all. It seems to me that I have already told in these columns, without his name, how Mr. Eidlitz once did a house near Bridgeport for Barnum, house long since consumed by fire, a house for which the drawings were ordered through an agent, in which

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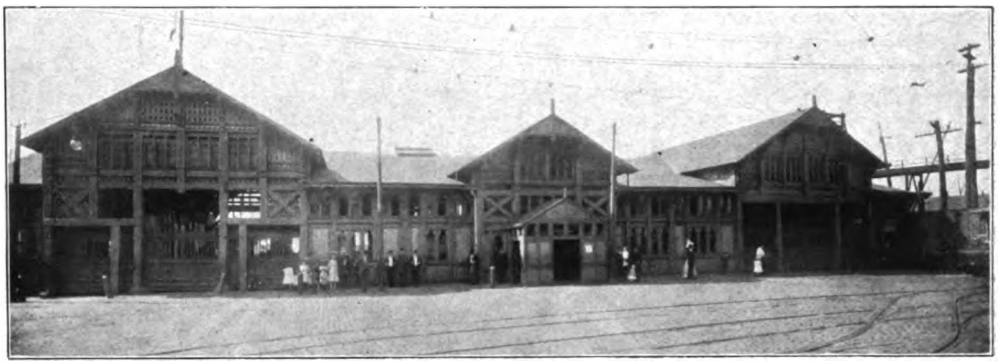


FIG. 7. HAMILTON FERRY HOUSE (ABOUT 1858).
Brooklyn, N. Y. Leopold Eidlitz, Architect.

the architect undertook the architectural expression of Humbug, mainly in lath and plaster, and succeeded, as he found on visiting the executed work long after, beyond his wildest dreams. In the same spirit of mischief which had inspired the design, he rang the door-bell, which was answered by the showman in person. The visitor, professing admiration for the edifice, inquired the name of the architect, and was informed that the architecture was the result of a cosmopolitan competition, had cost the showman $10,000. "No it didn't," retorted the actual designer, whereto the showman, with a presence of mind which at once explained and justified his success in humbug, softly queried, "Is your name Eidlitz?"

In such domestic work as he did seriously and not, like the lath domes of "Iranistan," in a spirit of hilarity or of mockery, he took for his prototype the Swiss châlet as the highest development of timber construction, superposing the timberwork on a basement of rough stone or of half-timbered construction with brickwork, once at least, in the pretty cottage at Englewood combining all three (Fig. 5) with an excellent effect. Of the half-timbered construction illustrated in the other cottage in New Jersey (Fig. 6) he related that he once designed a house, I think in Springfield, Mass., and on visiting the result long afterwards found that the ingenious Yankee carpenter had saved himself trouble by building a brick house and tacking on the timber framework by way of applied ornament. An interesting example of mere carpentry is the Hamilton Ferry House in Brooklyn, still standing after more than half a century, but shorn of much of its original effect by the removal of the more decorative features of the interior, and especially by repainting the interior in equable drab, where originally the construction had been effectively emphasized by the application of color. (Fig. 7.) Even in its present partly dismantled and partly obliterated state, the ferry house is an effectively picturesque object with its very bold timber hoods projecting over the slips on the water front, and its triplet of gables and emphatic framing on the land front. It is not praising it too highly, it is not praising it highly enough to say that it remains the most interesting, architecturally, of the ferry houses, whether its successors have been overlaid by concealing coats of shingles or of sheet-metal, and tormented into a factitious picturesqueness by the addition of superfluous features. Another rather remarkable piece of carpentry is the timber roof of a hundred feet clear span, with which, many years later, he covered Tompkins Market, after two previous roofs had failed. All these works were expositions of the mechanical facts of the case, as indeed was the case with his work in general, whatever the material. But the skeletonizing facilitated by an expressive treatment of wood, as of metal, makes the exposition more immediately apprehensible than in masses of masonry.

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While the Church of the Holy Trinity, at Madison Avenue and Forty-second Street, still stood, and while its organist, Mr. Samuel P. Warren, was giving recitals on the excellent instrument therein, an unmusical auditor observed, "I would rather hear a lecture on that roof," the roof being, as we shall see, the chief feature of the interior. That remark would have saddened or irritated the architect, who would have thought his work a failure if it did not "lecture on" itself. On the other hand, going with him once to look at the decoration of the Union League Club, when that decoration was new and a lion, I remarked the treatment of the king-posts in the ceiling of the dining room as columns with capitals and bases complete, as looking somehow wrong. The rational architect's comment was: "To appreciate the entire iniquity of the arrangement, you are to bear in mind that that member is not a compression-piece, but a tension-piece."

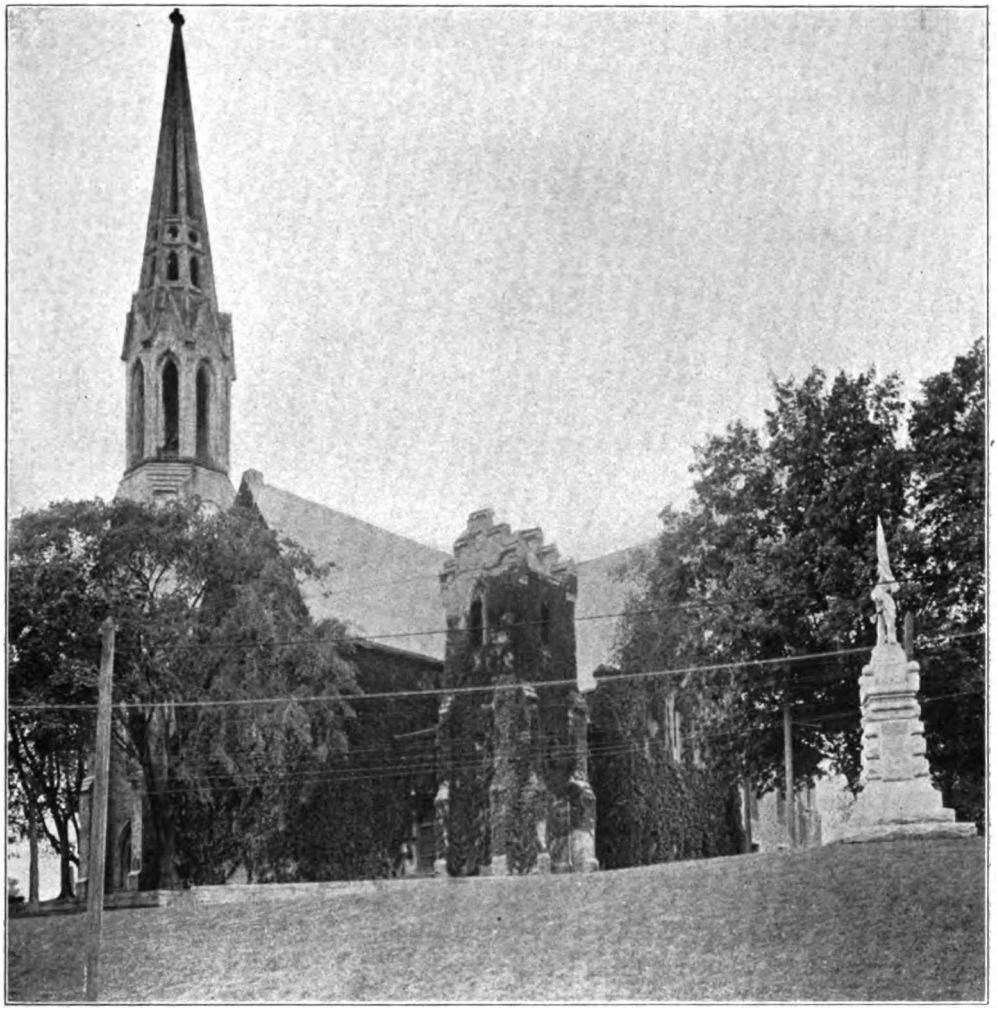


FIG. 8. CONGREGATIONAL CHURCH.
Greenwich, Conn. Leopold Eidlitz, Architect.

* * *

But about the church-building. The impulse to the Gothic revival in this

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country came from the Protestant Episcopal Church, and was necessarily "Anglican." The Anglican tradition meant little to a German, for whom its associations did not exist, nor much, comparatively, to a logician, who naturally and necessarily rated its historical examples below those of France and of the great German example which carried the logic of Gothic to its uttermost development. Accordingly the early churches of Eidlitz became, and I find remain, rather a country parish church, and these attributes are commonly to be found in the works of the architect. The open timbered ceiling of Christ Church in St. Louis, doubtless his most successful church, is some 27 feet higher than the vaulted ceiling of Trinity in New York, which has a much greater length. St. Peters has been partly rebuilt since, in consequence of a fire, though most sympathetically, and by the architect's own son. Otherwise, or even so, I should

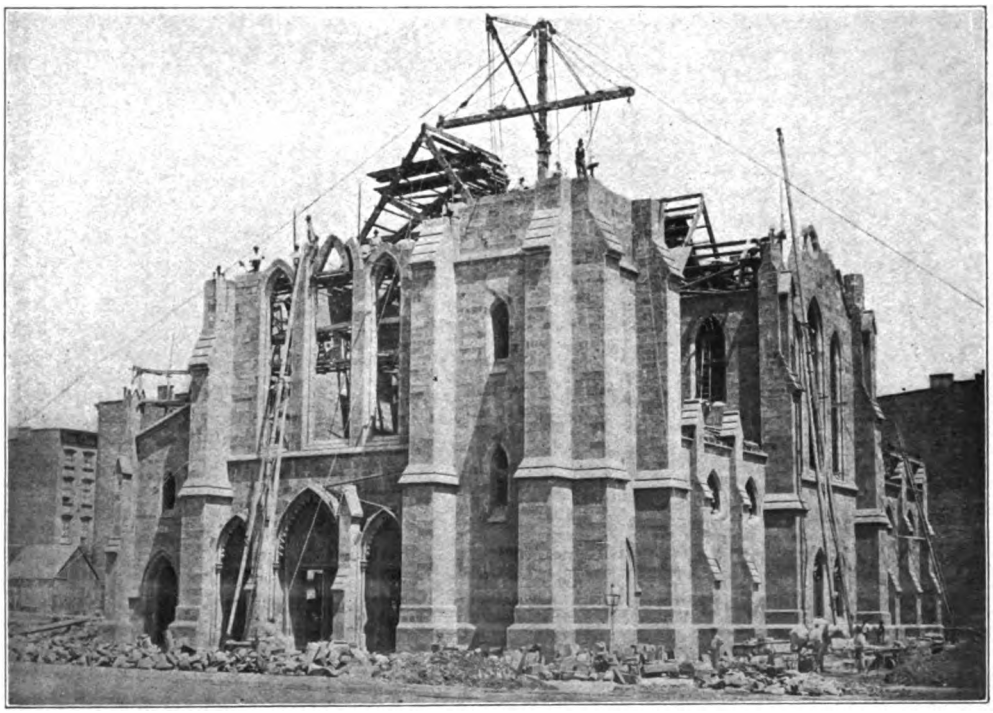


FIG. 9. THE BROADWAY TABERNACLE (1859-1905), DURING ERECTION.
6th Avenue and 34th Street, New York. Leopold Eidlitz, Architect.

rocks of offense to the Anglicans. The very success of St. George's designated its author as the architect of the Evangelicals rather than of the Ecclesiasticals. One of its earliest successors, St. Peter's, Westchester, completed in 1853, might be supposed to be a "churchly" church. But the insistence upon the transeptual arrangement, and the insistence upon height, even at the expense of other dimensions, would discommend it to the Anglican, with his preference for the "long drawn aisle," especially for

be glad to show here a photograph of it. But the Congregational Church at Greenwich, Conn., to which the ecclesiological tradition does not apply, an erection of 1857, I am able herewith to exhibit, as it looks in the summer of 1908. (Fig. 8.) When I first saw it, more than a generation ago, and had no means of determining its authorship, excepting "infallible inference," it struck me by its indigenous and homegrown and vernacular aspect. In spite of the unmistakably academic, German acad-

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emic, window traceries, the general treatment, even the treatment of the open spire was, and is, so unacademic. It seemed as if an inspired village mason, aided, or even possibly impeded, by a manual of German geometric Gothic, had piled up stone, in straightforward pursuance of "a refined building purpose." And so it strikes me again when revisited for the purpose of this article. ing to the surroundings, must, indeed, have seemed more incongruous with the Greenwich of 1857 than it seems with the Greenwich of 1908. So large and massive a church was a great undertaking for Greenwich half a century ago. There is, just beyond this Congregational Church, a very typical and extremely pretty Episcopal church, contemporary with it, from the designs of one of the



FIG. 10. INTERIOR OF CHRIST CHURCH (CATHEDRAL), COMPLETED 1867.
St. Louis, Mo. Leopold Eidlitz, Architect.

One might possibly detect in the renunciations of the finished work, the point of its author's remark upon Mr. Upjohn's design of the Church of the Pilgrims, in Brooklyn, to which he himself made a picturesque addition: "He did it conscientiously, upon the ground that Presbyterians were not entitled to architecture." But one prefers to think not. It is more to the point to remark that the design shows no intention of conformmost accomplished of the Anglican revivalists, Mr. Frank Wills, almost the perfection of an English parish church. The contrast is instructive. The Anglican edifice nestles in the valley. The Teutonic presentation of Congregationalism domineers from the hill, with excellent effect in its own way, which is not at all the way of the other. Mr. Eidlitz's work has lately been extended by Mr. Tubby through the addition of

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FIG. 11. CHURCH OF THE HOLY TRINITY (1875-1901).
Madison Avenue and 42d Street, New York. Leopold Eidlitz, Architect.

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a chapel at the rear, and in a very skillful and sympathetic way. And there are very few towns of the size of Greenwich which have three churches so well worth looking at in their several kinds, as these two, and a third designed by Mr. Cady for the Presbyterian worship. The old Tabernacle in Broadway was, as to its exterior, perhaps entitled to higher praise than that of solid dignity. (Fig. 9.) The interior, however, before its reconstruction by the removal of the columns, had interest and character. In fact, Mr. Eidlitz's interiors, especially his church interiors, were almost sure to be more interesting than the outsides. One of them never lacked some terminal feature focus and cynosure to draw the eye. In the case of the Tabernacle, this was an elaborate erection in carved oak framing and including the pulpit.

Christ Church in St. Louis, afterwards the Episcopal Cathedral, is in effect contemporary with these, since the plans were drawn and accepted in 1859, though the exigencies of a border city in war-time did not allow of the completion of the church before 1867. (Fig. 10.) This, you will perceive, is of a very different inspiration from the others, even from that other which is of the same denomination, being primarily ecclesiastical, not primarily evangelical. Naturally, it gains correspondingly in effect, having the cathedral complement of nave and aisles and transepts and clerestory, and the open timber ceiling excepted, being carried out in solid masonry. The Anglicans joined in the acclamation of this work as a brilliant success, including so impeccably Anglican a critic as Charles Kingsley, who found it "the most churchly" church he had seen in America. When it was built it had no superior in the country, and no rival in the West, as it cannot have many rivals yet. Without doubt it is its author's masterpiece in the stricter kind of church architecture, a piece of skillful and scholarly Gothic in which the scholarliness by no means excludes individuality.

In quite another kind, being a reversion to the evangelical "auditorium," and a much more radical version than any of its predecessors, was the Church of the Holy Trinity, at Madison Avenue and Forty-second Street, in New York. (Fig. 11.) The rector of Holy Trinity was the son and namesake of the rector of St. George's, was that Stephen H. Tyng, Jr., even "lower" than the senior of that ilk, of whom a ribald said, the time he resigned his charge to take an insurance agency in Paris, that this transition from fire to life insurance was startlingly sudden. His congregation had for some years worshipped in a very pretty little wooden cottage ornée by Wrey Mould on the same site when Mr. Eidlitz was commissioned to supplant it with a larger and more durable auditorium. The demand for "auditoriums" had infected much more "churchly" congregations, for it was just about then that the elder Upjohn had taken the octagon of Ely as the prototype for the new St. Thomas's upon the ground that a congregation, or rather an audience, could be better "accommodated" in that form than in the long drawn aisle. Mr. Eidlitz's solution was much more radical. He devised, as he put it, "a theatre with ecclesiastical details." The ground plan of his auditorium was an ellipse, appearing, or rather not appearing, in a piece of elliptical wall on one side, the outwardly invisible north side, but elsewhere inscribed in the parallelogram of the site, sometimes tangent to the outer walls and sometimes marked by screens of columns. Of course the arrangement involved a failure of exterior expression, to which the architect found himself forced to submit. He had once schemed a double-apsed clerestory, such as some of the great Rhenish abbeys show, for a project for a new Plymouth church for Beecher, project which was finally quashed by the great preacher's saying, characteristically, "What's the use? After me, you'll get nobody to fill it." Waiving the lack of correspondence between the outside and the inside of the Church of the Holy Trinity, the result was an interesting exterior and a far more interesting interior. Since the curve of the auditorium left no walls for the clerestory to stand on, this was lighted by the tall dormers

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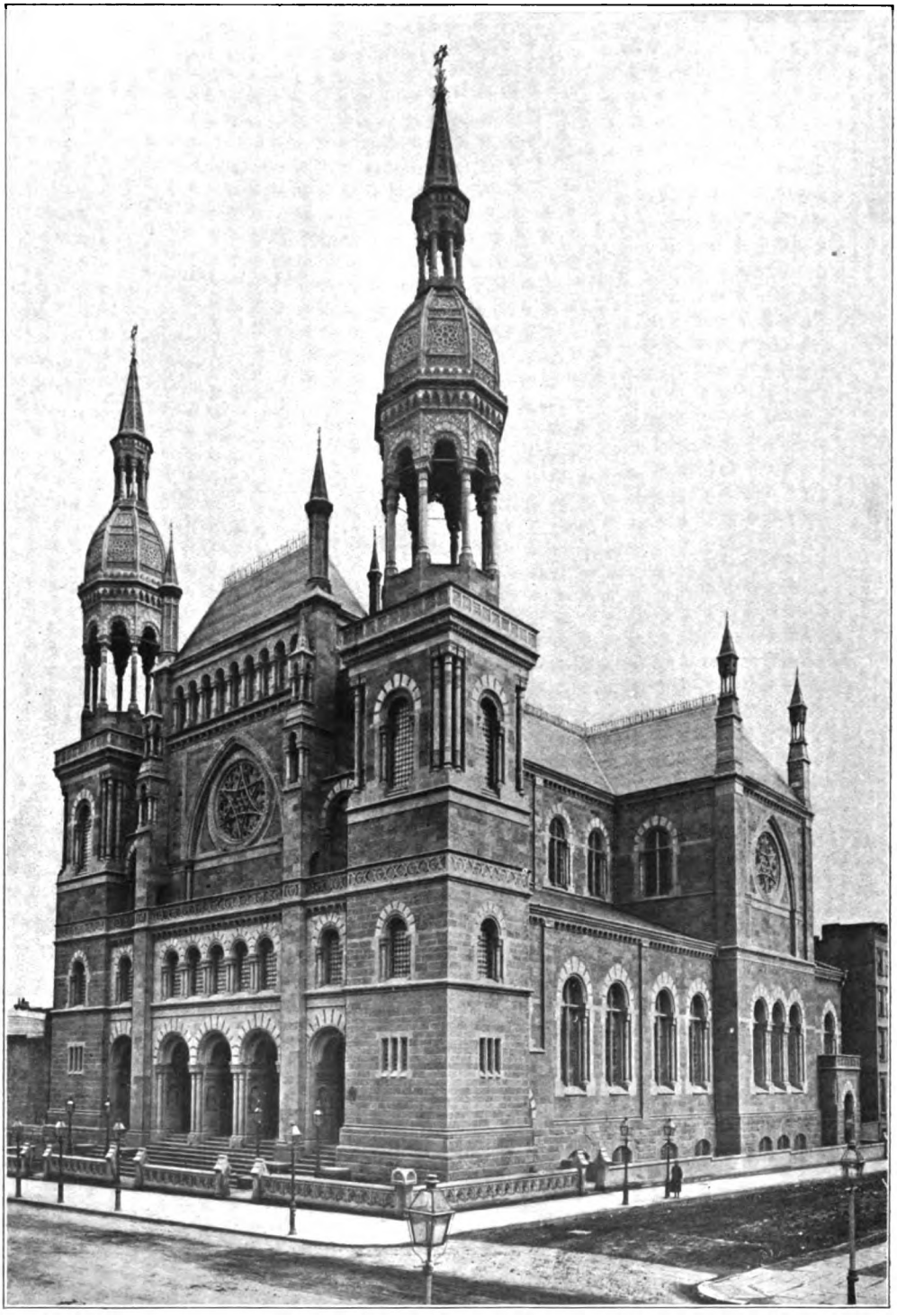


FIG. 12. TEMPLE EMANU-EL (1868).
5th Avenue and 43d Street, New York. Leopold Eidlitz, Architect.

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arranged in the roof itself, to the complication and the interest of which the framing of them much contributed. The roof was in fact carried from end to end of the longer axis of the ellipse by a great truss in timber on either side, which rested at the ends on massive granite piers, exhibited and decorated. As an auditorium, the interior was, I believe, entirely successful, while architecturally it was certainly impressive and even "churchly" in spite of the theatrical sweep of the galleries. It is sad to relate that, under a subsequent administration, the congregation went to work to reconstruct the interior, and even invited the original architect to submit plans for the reconstruction. He declined upon the ground that none of the things they wished to do was worth doing. Certainly none of the things they did was worth doing. They cut down the high windows of the apse, to the artistic destruction of that feature. They covered up with walnut mouldings the exposed granite piers which so dis-

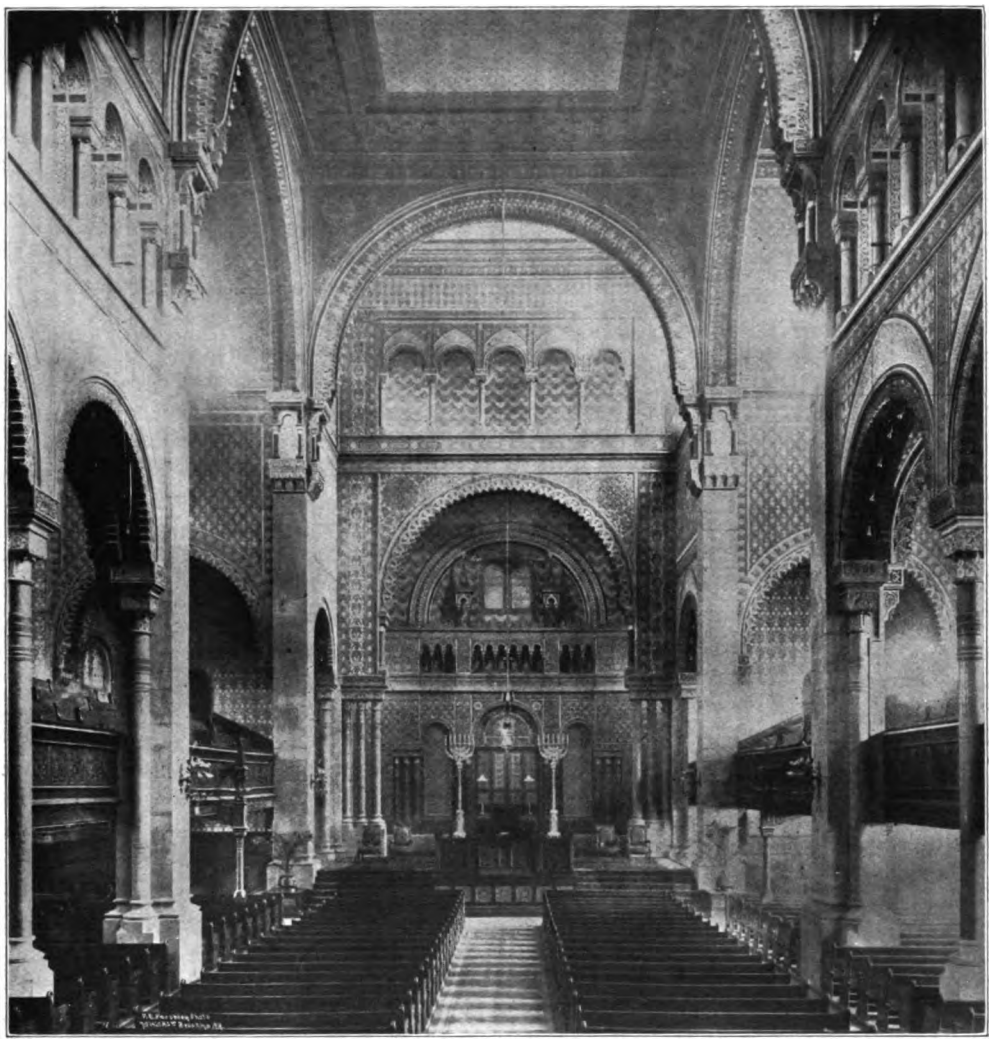


FIG. 13. INTERIOR OF TEMPLE EMANU-EL.
5th Avenue and 43d Street, New York. Leopold Eidlitz, Architect.

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tinctly asserted their function. In short they converted a construction full of purpose and character into a meaningless and characterless sham. And all this under the impression that they were making the interior "more Gothic," a pretension which the rector avowed in the address he made upon the completion of the alterations, and which denoted an insufficient sense of the distinction, between the Goths and the Vandals. It was really a relief when the poor thing was put out of its misery by being demolished, though it is a pity that there is no photograph available which represents so interesting and so sadly misconceived an architectural achievement. The less interesting exterior expression of it is available. At once upon its completion the ever-ready New York nomenclator, the same who had dubbed Wrey Mould's Unitarian Church in Fourth Avenue "The Church of the Holy Zebra," or his legitimate successor, stigmatized it as "The Church of the Homely Oilcloth," and careless New York in general let it go at that. Wrey Mould and Eidlitz, by the way, though antipodean in their respective attitudes towards life, and in everything else excepting their common love for Gothic architecture, were sympathetic even when competitive. I have just come across, in the file of "The Crayon," for 1856, an enthusiastic article by Eidlitz upon Wrey Mould's design for the Unitarian Church, and another, from the same pen, on Wrey Mould's design for that new church of Beecher's, enthusiastic artistically, though deeming R. M. Hunt's design the most practical meeting of the Plymouth Church requirements. And the respectable and responsible Bohemian greatly enjoyed a compliment from the Bohemian and irresponsible Anglican which was repeated to him: "Eidlitz is death on form; but I'm hell on color." "The Church of the Oilcloth," homely or otherwise, was as wide of the fact as most popular epigrams. The brick mosaic was as mere a detail in the mind of the designer of the later church as the striping in red and white had been in that of the earlier. Its novelty gave it an undue importance in the eyes of the casual beholder. In fact, it was entirely successful where it was removed far enough from the eye, as in the main tower and the apse, and even at the top of the smaller tower. But in the field of the side wall, by some optical illusion which the architect had not foreseen, the diaper of yellow, brown and blue, in juxtaposition to the field of the wall, produced a zig-zag which gave the look of confusion and weakness. This old photograph, by the presence of the one-storied shops in the foreground, which the irony of fate has preserved when what was so much better worth preserving has passed away, recalls that the architect of the church made an offer to the "Vanderbilt architect," the architect of the shops, the respectable but not illustrious Mr. Snook, to design the shop fronts for nothing, in order to bring them into some sort of grouping with the church. The offer failed, but not by reason of any reluctance on the part of the other practitioner, only by reason of a pressure of time under which he could not accord the necessary "three weeks" for architecturalizing the shops and bringing them into relations with the church. A much more important project failed, with results we must still find deplorable, when, through a common friend, Mr. Eidlitz endeavored to transmit to Mr. Roebling, the engineer of the East River Bridge, an offer to model, gratuitously and out of pure interest in the great work, the towers of that structure. The friend declined to convey the proposal, fearing to wound the susceptibilities of the engineer. It was a great pity, for the work the architect volunteered to do was work he was pre-eminently qualified to do. If he had done it, the towers would not now stand as disgraces to the airy fabric that swings between them.

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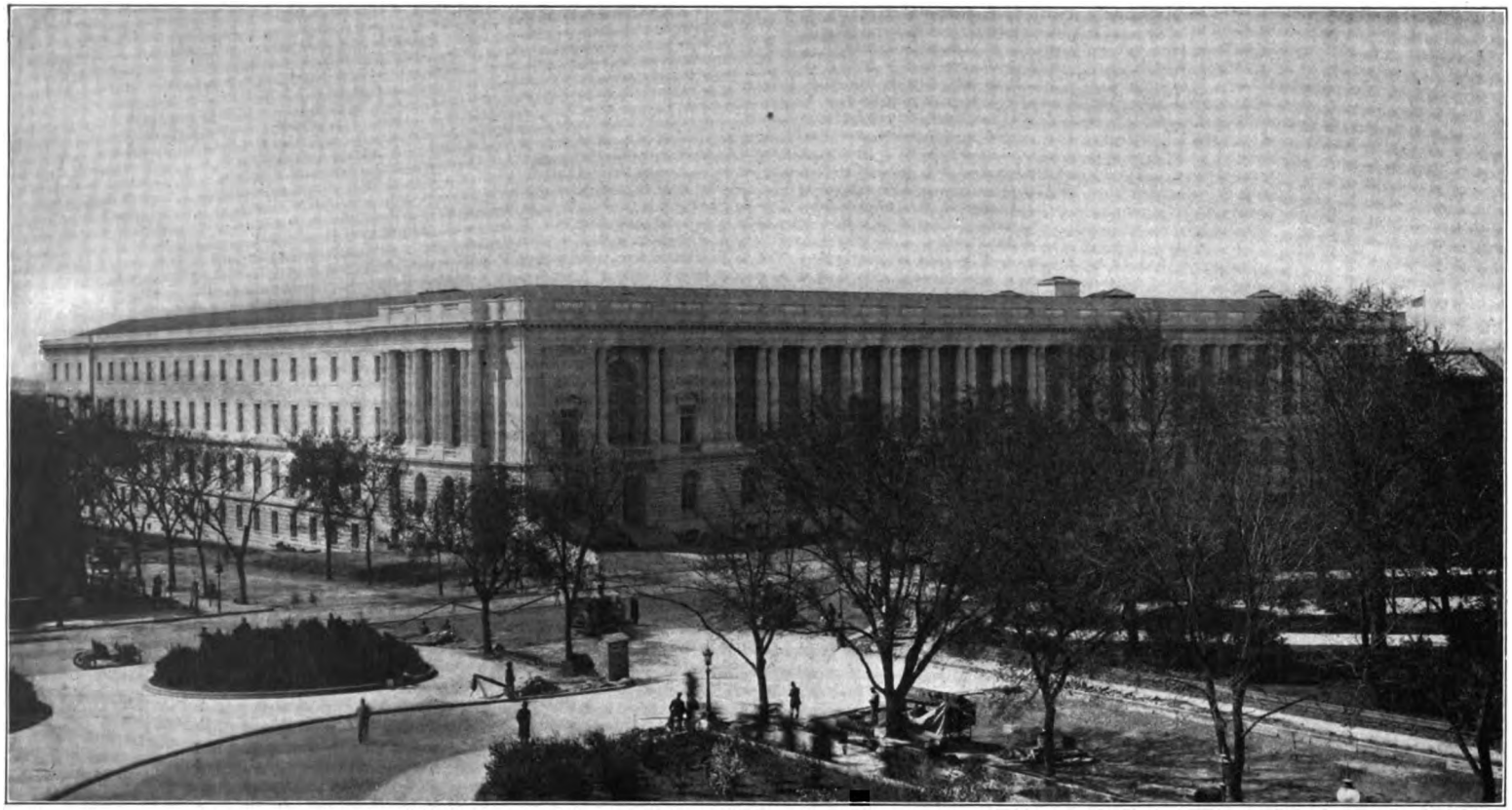
Still more "out of line" with the usual employments of a church architect, than the church of the Holy Trinity, or than any Christian church or conventicle whatsoever, was the Jewish synagogue in Fifth Avenue, which is the most conspicuous and probably the most meri-

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torious of the works of its author which still stand in New York. (Fig. 12.) The convention that the architecture of a synagogue should be Oriental was already forty years ago fully enough established, but it had not resulted in many noteworthy works. It was at any rate, desirable that a synagogue should be distinguished from a Christian church, while yet Christian architecture contained what the architect of this synagogue regarded as the only available repertory of constructions suitable for so elaborate a work. The temple is an attempt accordingly to combine Gothic structure with Saracenic decoration, including in that term carved and moulded as well as colored ornament. It was a very bold attempt, but it was justified by the event. The attempt is proclaimed in the front, the setting of a nave of which the central feature is a rose window of Gothic tracery in a pointed recess between minareted towers, culminating its buttresses with minareted pinnacles, surmounting it with an arcade that is in effect an emphatic belt, and a hipped roof, instead of the gable that was to be expected, and laying stress throughout on the horizontal and comparatively slurring the vertical lines which would have denoted it as Gothic. The emphasis is deepened by the wide space between the nave and its flnaking towers, and by the extremely pretty flying bridges that connect them with it. There is an academic incongruity in all this, doubtless, but it is altogether of the letter, not at all of the spirit. The fusion of styles is real and complete, not only in the exterior, but in the interior where occur such technical incompatibilities as a regular round arched triforium amid Alhambresque decoration, and minarets crowned with Gothic foliated finials. The exterior is known to all New Yorkers, of course, but the interior is even better worth knowing. (Fig. 13.) What was meant to be its culminating feature, the light gallery over the ark at the east end, lighted from invisible openings at its ends, is now marred of its original effect, being filled with organ pipes, which also produce a pretty effect, though by no means the effect the designer intended. The color decoration, however, which was not crude even when the temple was opened, has been delightfully mellowed since, by time, and, though entirely in positive colors, it makes the intended effect of the resultant tint. "Some decorators mix colors in the pot," the architect used to say, "and others on the walls." Doubtless in theory the juxtaposition of positive colors, producing the desired "tone," has the advantage of far more vividness and fire. George Inness once proposed to himself to paint landscape with the three primaries alone, though he was mercifully withheld from the actual attempt. Seemingly it is in a large part a question of optics. To one eyesight the colors will blend at a distance from which, to another, they stand out in all their native crudity. But for most spectators this decoration in the Temple Emanu-el is very successfully blended. On the other hand those who remember the ceiling of the Assembly Chamber as it was, remember that the density of the design was not sufficient to induce the blending, and that the colors remained crude in effect, in spite, or even in part because, of the relief which did undoubtedly enhance their liveliness. In the architect's own drawing-room, on the other hand, he made the experiment of giving force to the color by modelling the plaster in relief and here, on so much smaller a scale, with entire success, and with even a greater advantage to the life of the decoration than a fabric woven in colors has over one printed. In any case, the interior of the temple is a beautiful success, one of the most notable interiors in New York, while exteriorly the main entrance is one of the most interesting repertoires in New York of decorative detail and the porch at the rear one of the most picturesque and sketchable "bits."

Montgomery Schuyler.

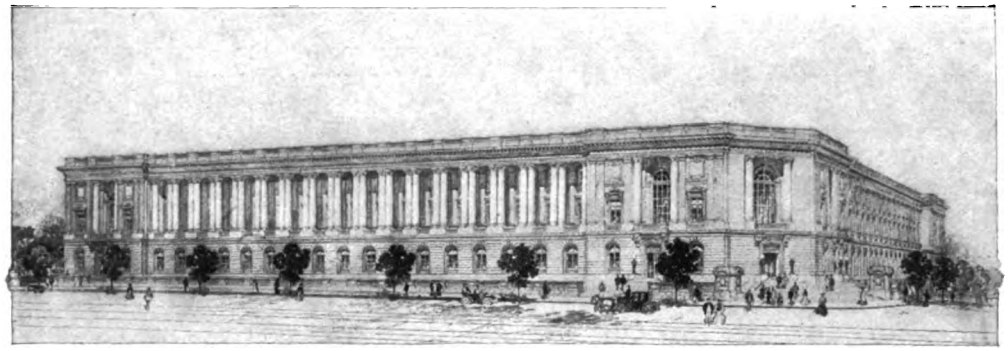
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HOUSE OF REPRESENTATIVES OFFICE BUILDING—B STREET AND 1ST STREET FRONTS.

Washington, D. C. Thomas Hastings, Consulting Architect.

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New Public Buildings at Washington

I.

The House of Representatives and Senate Buildings

Within the past five years, six new public buildings have been erected in Washington, at a cost of over eighteen million dollars, the greater part of which has been borne by the Federal Government. Four of these buildings have been finished within the last ten months, and the remaining two are now nearing completion. At no time since the National Capitol was established on the banks of the Potomac have such extensive building operations been carried on by, or for, the Government, and certainly not since the days of Thornton, Latrobe and Bullfinch, has the United States built so wisely or so well.

Washington is fortunate in her tradition—she was exceptionally well planned and her first public buildings were admirably designed. This tradition imposes certain restrictions, but it also sets a standard which is good. All of the public buildings recently erected are classic in style, as are the Capitol, the White House, the Treasury, the Patent Office, the Land Office and the City Hall, and five of them have been located in accordance with the suggestion of the Park Commission, appointed by the United States Senate in 1901, which urged, in every particular, a speedy return to, and strict conformance with, the original plan of the city.

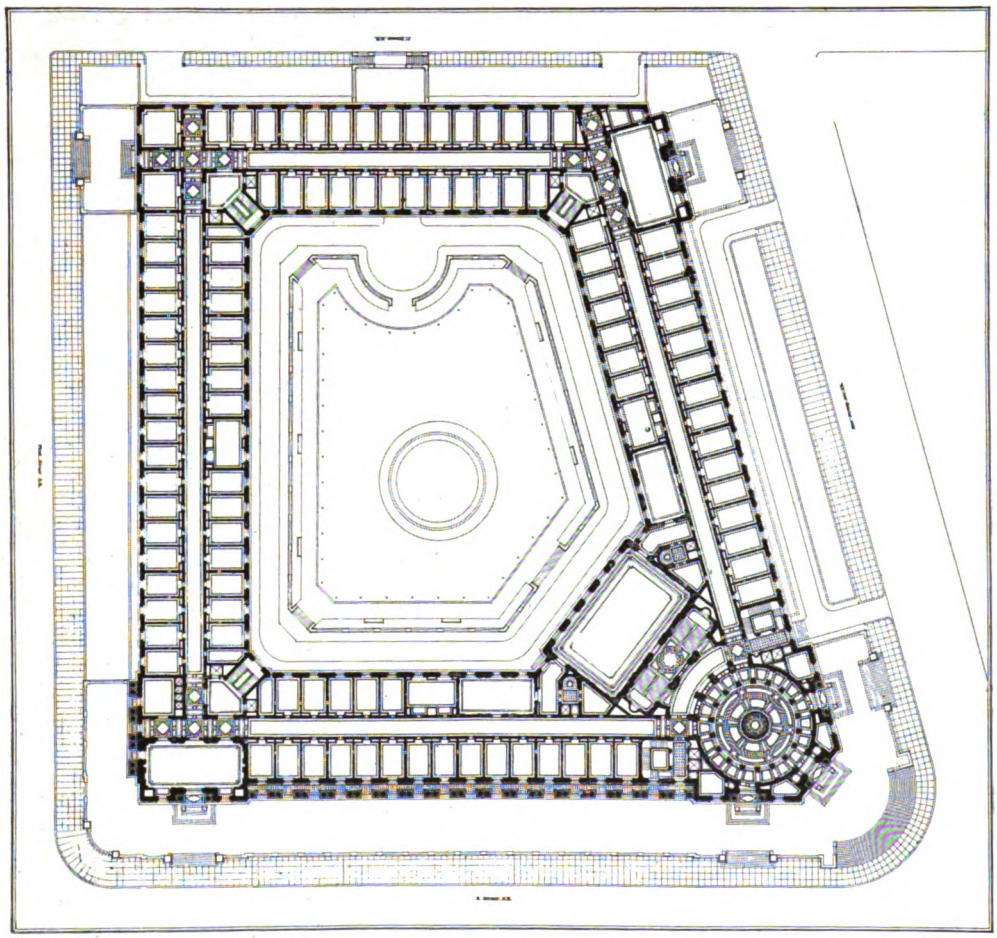
When Major L'Enfant laid out, on paper, the city that Washington and Jefferson saw in their dreams, he placed the Capitol on the eminence upon which it now stands, and proposed that legislative buildings should be erected so as to inclose the open space to the east and form a great quadrangle. But Major L'Enfant was ahead of his times, and a hundred years passed before any definite steps were taken toward carrying out this scheme. In the early nineties the building for the Library of Congress was located upon a site to the east of the Capitol Square, and ten years later Congress authorized the purchase of land to the north and south to serve as sites for office buildings for the House of Representatives and the Senate. The House Office Building, which was begun probably a year before that for the Senate, was occupied last winter, though then scarcely completed, and the Senate Office Building will, it is thought, be ready for occupancy when Congress reassembles next December.

Fortunately both of these buildings were entrusted to the same firm of architects—Carrère and Hastings—and to a firm whose past record gave assurance of good result. Thus these buildings, which stand in identically the same relation to the Capitol, have been

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studied relatively, rather than independently, and have been wrought, all must admit, with mature skill and understanding. The construction of these buildings was under the personal supervision of Mr. Elliott Woods, the Superintendent of the Capitol Building and Grounds; and all the required details were made, in a draughting room near the Capitol, under the direction of Mr. Oscar Wenderoth, subject merely to the criticism of the consulting architects—Mr. Hastings for the House and Mr. Carrère for the Senate Building.

The two buildings are nearly identical in plan as well as in appearance. The House Office Building is in the form of a hollow square, the open space in the center being a court nearly 300 feet in diameter; the Senate Building takes the form of a U with a court of equal size inclosed on but three sides. The offices in the Senate Building are arranged in suites of two, whereas in the House Building all are separate and non-communicating. These are the only differences except in matter of finish hence the scrutiny of one will suffice.

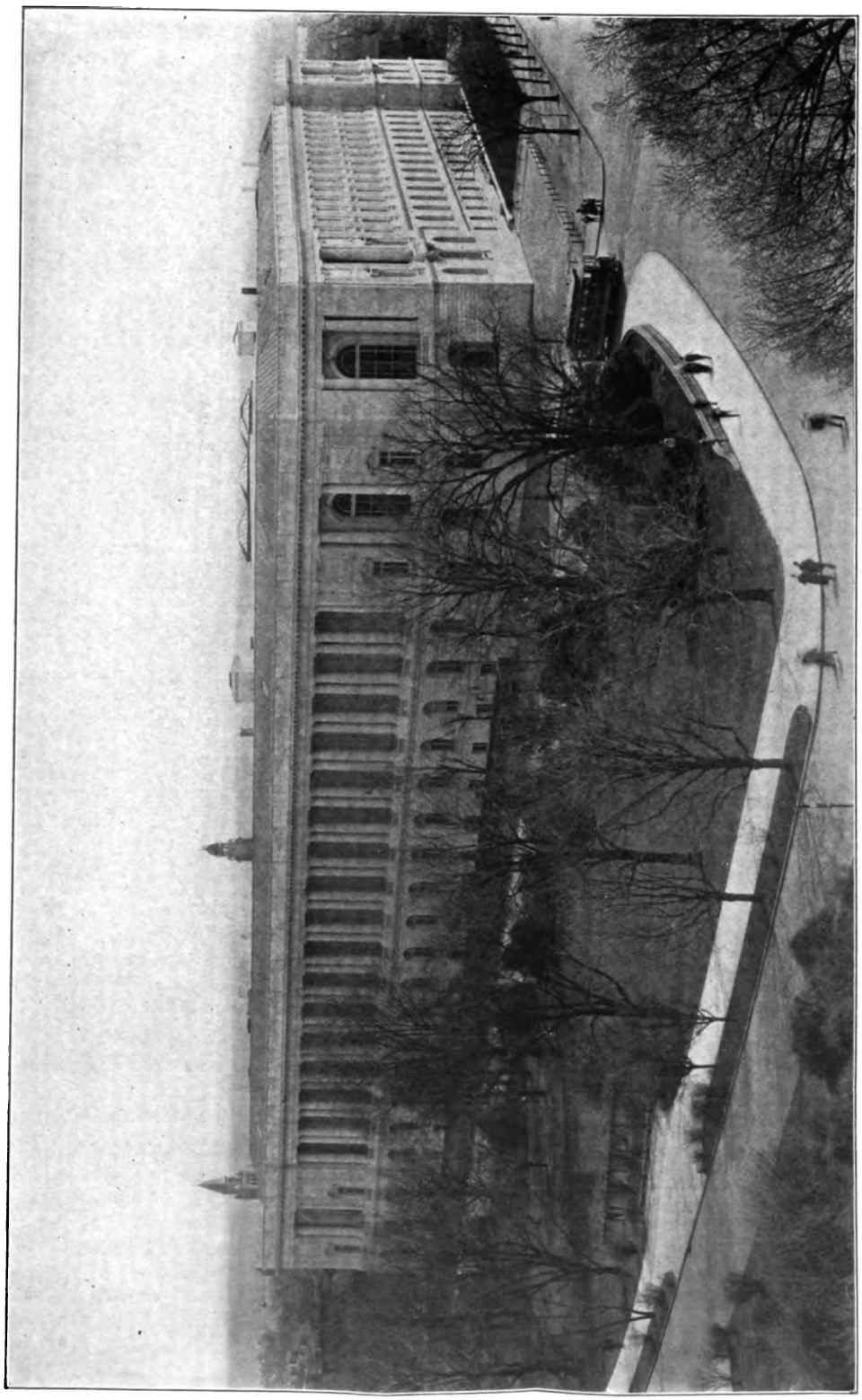


HOUSE OF REPRESENTATIVES OFFICE BUILDING—PLAN OF PRINCIPAL (SECOND) FLOOR.

Washington, D. C. Thomas Hastings, Consulting Architect.

The House Office Building occupies an entire block bounded by B and C Streets, First Street and New Jersey Avenue, south east of the Capitol, and

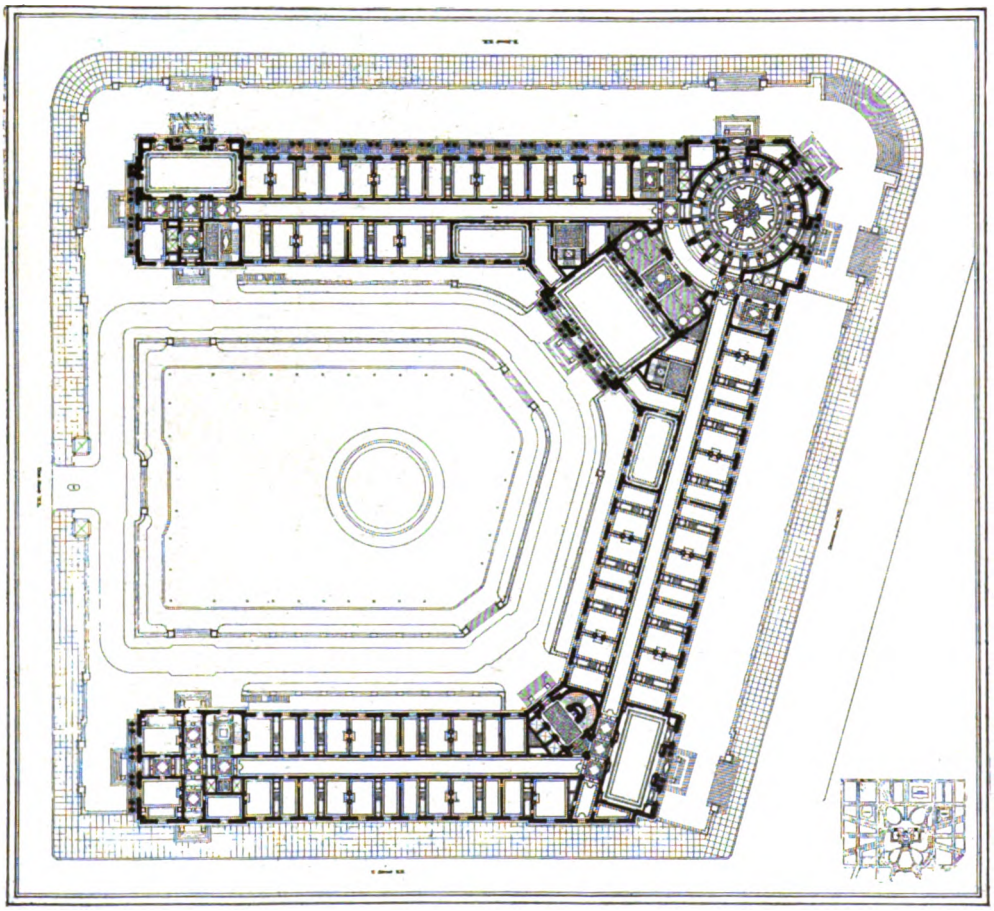
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HOUSE OF REPRESENTATIVES OFFICE BUILDING—B STREET AND NEW JERSEY AVENUE FRONTS.
Thomas Hastings, Consulting Architect.
Washington, D. C.

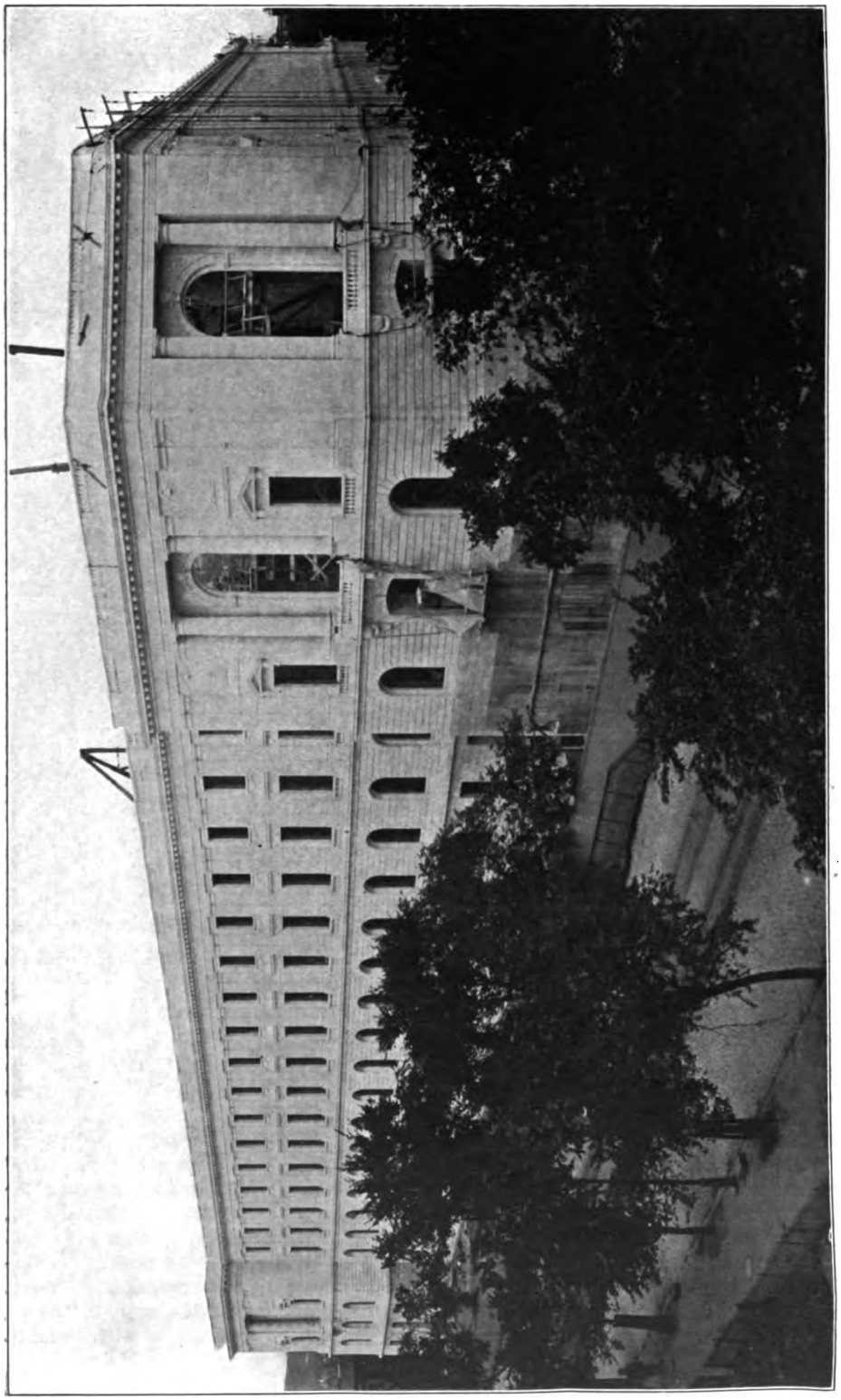
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has a total frontage of approximately one-third of a mile. On B Street, which also bounds on the south the Capitol Square, and on New Jersey Avenue, which is toward the Capitol, the façades have been set back 55 feet from the curb and the space between the side walk and the building is to be devoted to terraces and balustrades, which will undoubtedly enhance the effectiveness of the building, assuring it on these two sides suitable setting. On the principal (B Street) front the building is three stories in height above ground, but the grade falls away so rapidly on New Jersey Avenue and First Street that the rear (C Street) front is five stories above ground, the lowest story being the sub-basement which is on a level with the street and court. This has made it possible to arrange ample driveway entrances in the center of the C Street wing, on the street level, by which access is gained to the court. These driveway entrances open on large rooms, which will be used for handling incoming and out-going mail, as well as supplies, etc., required both for this building and the Capitol, with which it is directly connected by a spacious subway. A driveway starting at the C Street entrance encircles the court and gives access to the building at each of the corners of the court where doorways have been provided leading directly to the staircases and elevators. The first four



SENATE OFFICE BUILDING—PLAN OF PRINCIPAL (SECOND) FLOOR.
Washington, D. C. John M. Carrère, Consulting Architect.

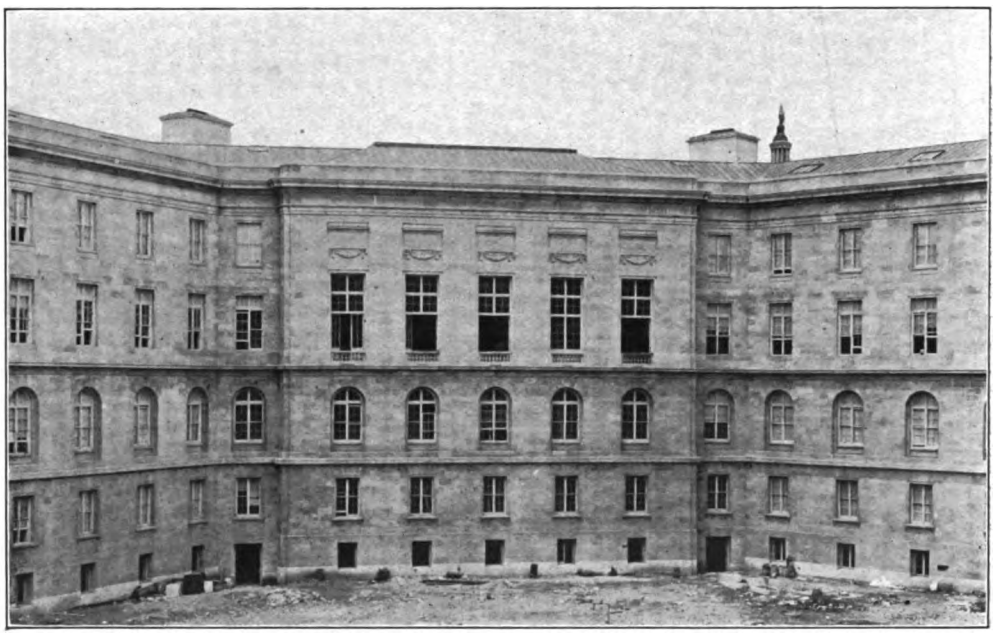
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SENATE OFFICE BUILDING IN COURSE OF CONSTRUCTION—DELAWARE AVENUE AND B STREET FRONTS.
John M. Carrère, Consulting Architect.
Washington, D. C.

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floors are devoted to the offices which are arranged in a double row separated by a corridor 12 feet wide. There are in all 397 and each is 23½ feet by 16 feet in dimensions. In addition to these there are fourteen large rooms set aside for the use of committees; a conference, or caucus room, with cloak and lounging rooms adjoining; a dining room, lunch room, pantries and kitchen; a post-office, barber shop, and bathing room, and, in the cellar, storage rooms; everything in fact that need or comfort could suggest. the rotunda has a diameter of 57 feet 4 inches, whereas the diameter of the encircling wall is 75 feet 6 inches, and the height from the floor to the eye of the paneled dome is 68 feet. Immediately back of the rotunda is a circular corridor connecting the B Street and New Jersey Avenue corridors, and back of this is the main stair, which is double, and ascends between walls with frequent landings, after the manner of the monumental stairs of the Italian Renaissance. The Conference room is back



HOUSE OF REPRESENTATIVES OFFICE BUILDING—COURT.
Washington, D. C. Thomas Hastings, Consulting Architect.

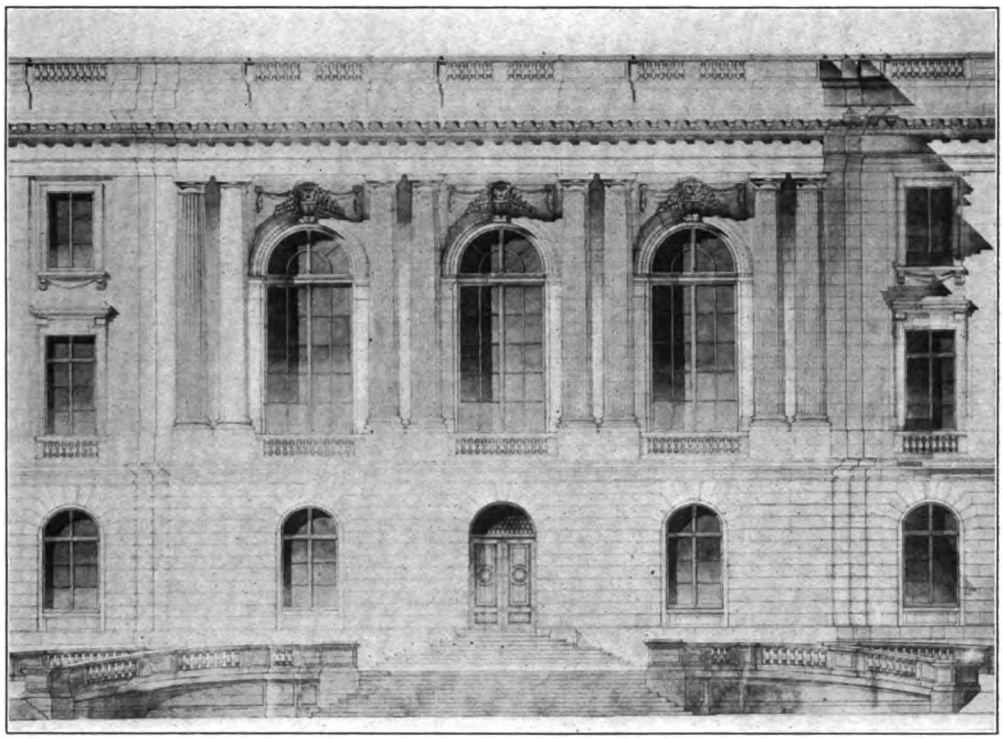
Architecturally there are four places of special interest in this building—the rotunda, which is at the corner of the building nearest the Capitol; the vestibule, at the corner nearest the Library of Congress; the Conference room, beyond the rotunda; and the grand staircase, which intervenes between the two. The rotunda, which is entered from the street, extends from the second office floor to the roof and terminates with a dome. It consists of a circle of 18 marble columns standing on a marble arcade, all inclosed in a circular wall, or shell. On the center line of the columns, of this staircase, on the third floor of the building, and, with three large windows, overlooks the court. The space given to this room on the third floor is occupied on the second floor by the post-office, and on the first floor by the bathing room and barbershop.

The exterior of this building is avowedly classic in design, but it is distinctly the French interpretation of the Classic. The B Street façade has as its principal feature a colonnade, composed of sixteen columns, which extends through two stories and is flanked with pavilions. This colonnade rests upon a rusticated

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base, and is surmounted by its entablature and a balustrade. In its general division of parts this façade suggests the Garde Meuble on the Place de la Concorde, Paris, and the pavilions are modeled on those of the Colonnade du Louvre. On New Jersey Avenue the colonnade is omitted, but recalled by the employment of pilasters; on C Street and First Street there are neither columns nor pilasters, except at the extreme north end of the latter façade where there is a short colonnade of four pairs of columns; and the court walls are absolutely plain. This difference in treatment is emphasized in the House Office Building by the change of material, the B Street and New Jersey Avenue façades being faced with marble from South Dover, New York; the C Street and First Street façades with Georgia marble; and the court wall with limestone from Bedford, Indiana.

Note should be made here of the reticent handling and scholarly treatment of these two buildings. Artistic "intemperance" and architectural "wantonness"—both common faults—have been avoided, and in their place are found refinement and restraint. Whereas the appearance of these two façades, at a distance, is simple, one will discover upon them, at close range, much ornament finely designed and judiciously placed. It is this refinement of detail which charms and for which both the House and Senate Office Buildings are notable. Without question the finish externally is exquisite and betokens infinite study—endless pains. Perhaps one may feel that it is possible to put too much emphasis on technique, that in the



HOUSE OF REPRESENTATIVES OFFICE BUILDING—DETAIL SLIGHTLY MODIFIED IN EXECUTION.

Corner of New Jersey Avenue and C Street, Washington, D. C.
Thomas Hastings, Consulting Architect.

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following great masters the "letter" may be mistaken for the "spirit," that there is such a thing as becoming enslaved to tradition; but, it will be confessed, that we, in America, have been a little too careless of form, too bent on originality, too regardless of precedent, and that the danger of over-study is not great.

show. If the finish is plain, it is genuinely plain—there is no tinstone, no papier-maché wood, no imitation marble, or bronzed iron. The windows are set in metal frames without trims, the floors of the offices are of cement, the walls are buff plaster sand finished, the doors are mahogany, and the rest of the wood-



SENATE OFFICE BUILDING—CONFERENCE ROOM.
The pilasters in this room are to be of white instead of green, as contemplated when the above drawing was made.
Washington, D. C. John M. Carrère, Consulting Architect.

Passing from the exterior to the interior of the House Office Building one finds certain features extremely interesting, but the greater part very plain. Close economy had to be practised in regard to the interior finish, but nothing has been done that will at any future time interfere with further elaboration —no expense entered into for useless work—baseboards, picture mouldings and architraves around the doors—is pine, painted white.

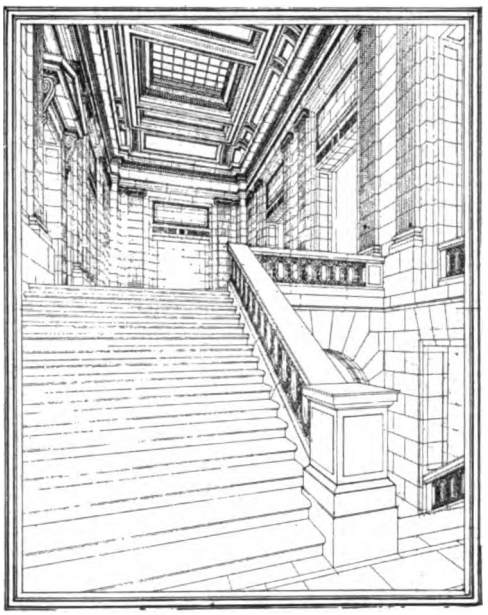
Great attention has been given to the mechanical equipment of these offices, and no little ingenuity displayed in the installation of heating and ventilating ducts, water pipes, and electric conduits. These supply the "creature comforts"

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which, once experienced, are quite indispensable, and which, after all, go a long way toward making a building livable. At the corridor end of each office room are two flues, inclosed in terra cotta—one for heat, the other for ventilation. Against the heat flue is placed the telephone, as well as the outlet to which will ultimately be connected the call bell system—a signal to sound when the "Legislative bell" in the Capitol rings. All electric wires, in fact, run through this flue, whereas in the ventilating flue are the hot and cold water pipes, ice water pipe and waste pipe. Each office has a lavatory with open plumbing, an electric clock, a telephone, and electric lights, but no fireplace. The elevators and the stair cases have been well disposed; the window openings in the rooms have been made adequate, and the corridors have been well lighted. From the standpoint of utility and convenience no fault is to be found.

As I have said before, the appropriation for this building was not over-liberal. Its contents is 8,800,000 cubic feet, and the appropriation for construction was only $3,100,000, and of this $1,100,000 went for the stone work, the contract for which—the largest of its kind ever given—called for the furnishing and setting of over 285,000 cubic feet of cut stone. The building is of old-fashioned masonry construction; the walls are faced with stone, backed up with brick, and the floors are carried on steel beams resting on the stone-faced exterior and the solid brick interior walls. Between the beams is the floor construction of reinforced concrete. The brick, sand and cement, used in backing up the stone work and in constructing the interior walls was furnished by the Government.

The Senate Office Building has a somewhat larger appropriation—$3,500,000—and is only three-fourths the size of that erected for the members of the House. This will give more for finishing, and in the rotunda, the main hall, the Conference room, in a number of vestibules, and in nine committee rooms, marble will be used quite freely, though appropriately, for decoration. Vermont marble has been used for all the exterior walls and Indiana limestone for those on the court. At some future day, when necessity induces, the fourth side may be added to this building and the court inclosed, but before then, even, it is hoped, some steps will be taken to materially beautify the court. The dimensions and positions of both it and the one inclosed by the House Office Building, afford excellent opportunity for delightful treatment—opportunity which in all probability will not be overlooked.



Staircases in Senate and House Office Buildings

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II.

The Union Station

Facing the north front of the Senate Office Building, and contrasting with it interestingly in design, though a quarter of a mile distant, stands the new Union Station, which testifies most strongly to the fact that the day is surely approaching when the utility of beauty will be generally recognized.

It was the architect of this building, Mr. Daniel H. Burnham, who said that the delightfulness of a city is an element of first importance, and none has done more than he to prove the statement true. He it was, it will be remembered, who designed the buildings of the Columbian Exposition, which set America to thinking, and he it was, also, who served as the chairman of the Senate Park Commission, whose plan for the artistic development of Washington has stimulated the art of city building in all parts of the world.

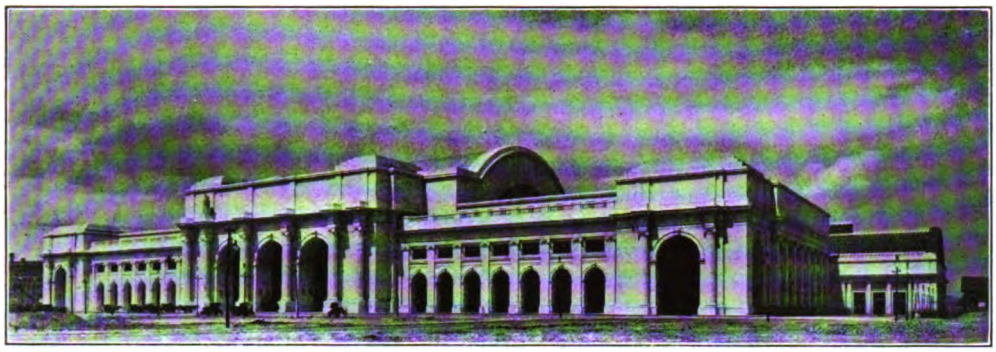
Before the Park Commission had been appointed by the Senate, Mr. Burnham had been asked to design a new station for the Pennsylvania Railroad at Washington, and when it was decided, by this commission, that the carrying out of L'Enfant's plan for the National Capitol required the removal of all tracks from the Mall, it was Mr. Burnham who induced the officials of the railroad to consider a change of site. It is understood that the proposition was not at first looked upon with favor, but when the situation was fully explained to the late President Cassatt he acquiesed, remarking, it is reported, that the Pennsylvania Railroad was pretty big, but that it was not big enough to stand in the way of such a plan for improvement. President Loree, of the Baltimore & Ohio Railroad, which was also preparing at that time to build a new station, was no less broad-minded, and after a careful consideration both railroads agreed to meet the desires of the Park Commission in any arrangement consistent with the interests of their stockholders. Thus the site at the intersection of Massachusetts and Delaware Avenues was selected, and authorized by Congress in February, 1903, and a great Union Station planned.

The advantages of the chosen site are manifest. It is within half a mile of the Capitol, and a mile and a half, or two miles, from the business district; it lies at the center of no less than nine radiating streets and avenues, permitting ready distribution of large masses of people; and its tracks pass through a small and relatively unimportant section of the city. There were, of course, some drawbacks—the land upon which the station has been built was, at the time the work was undertaken, less than twenty feet above mean tide, and to secure the desired sixty-foot elevation necessitated a tremendous fill. It is, in fact, estimated that approximately 3,500,000 cubic yards of earth were handled in either raising or lowering the grade of the 165 acres contained in the terminal area; 900,000 for filling within the limits of the terminal occupation, and 1,000,000 for the plaza and the adjacent streets. The cost of the work was naturally gigantic, amounting to about $20,000,000 in all, of which Congress appropriated $3,000,000, and the District of Columbia $1,600,000. The result, however, certainly justifies not only the choice, but the expense. Washington has now, thanks to the generous and intelligent coöperation of the railroad companies, a "vestibule" of which the Nation may be proud.

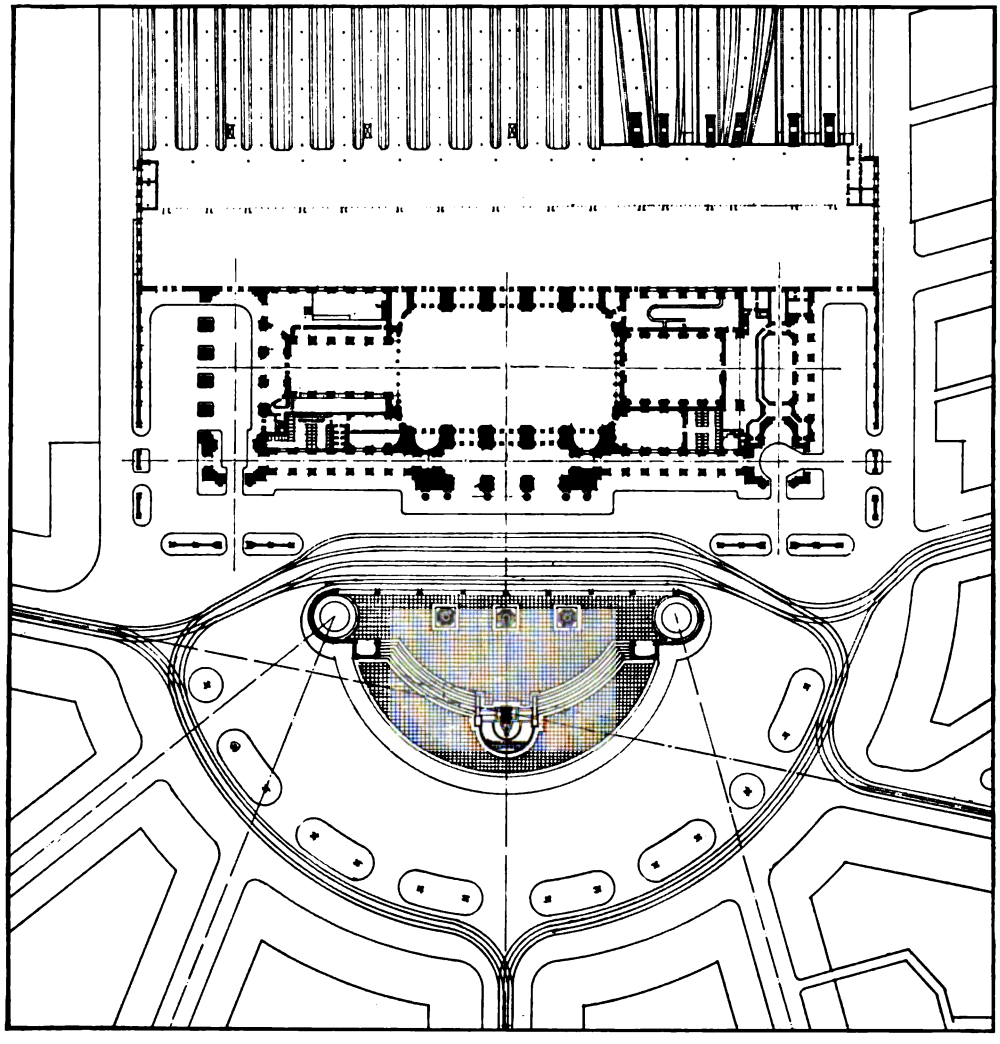
Because this station was conceived as a gateway and considered in relation to the great public buildings already erected in Washington, its architectural motives were derived from the triumphal arches of Rome; its central portion being directly inspired by the Arch of Constantine, and its wings merely brought into practical subordination. The design is peculiarly appropriate and happy—a fine adaptation of the best tradition offers—and though umbrage may be taken on account of a certain clumsiness of detail, the effect, it must be confessed, is both monumental and charming.

Much has been said in regard to the

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FAÇADE.



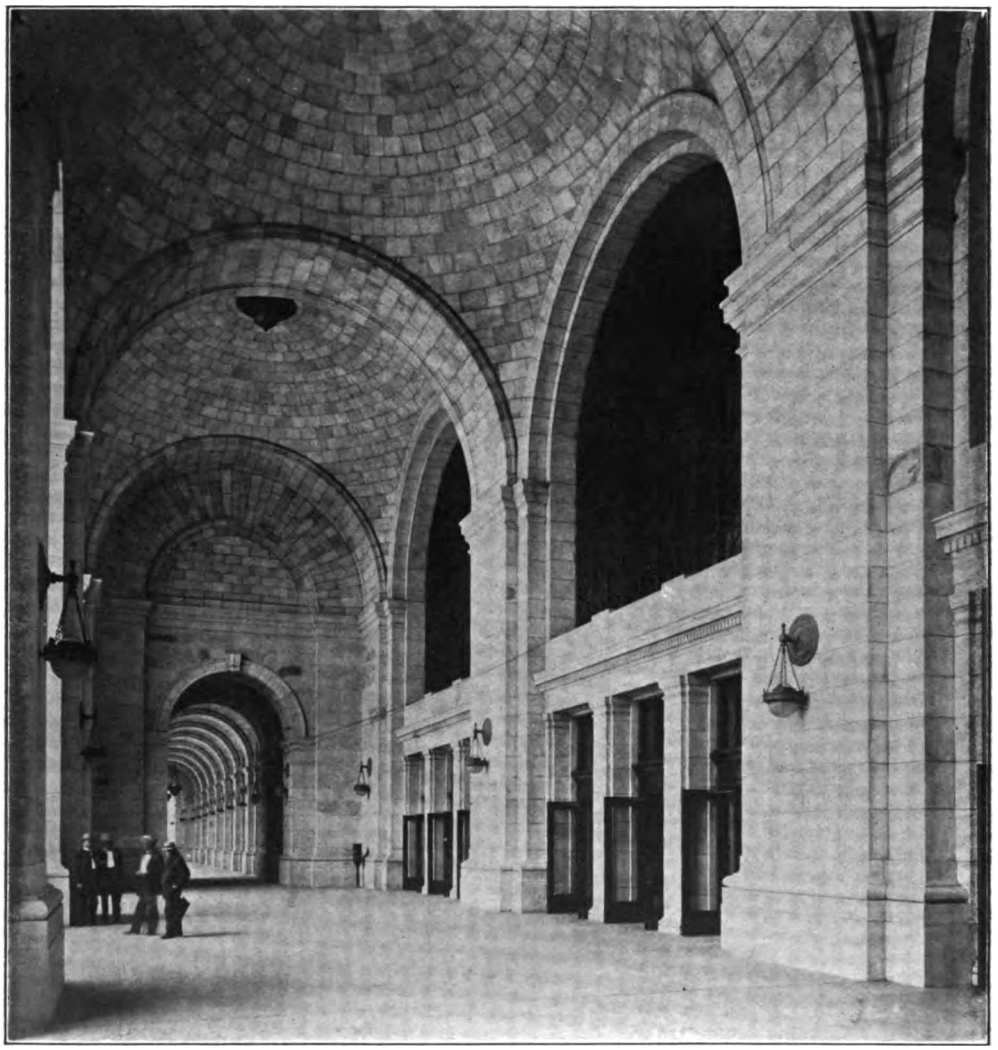
THE UNION STATION—PLAN.

Washington, D. C. D. H. Burnham & Co., Architects.

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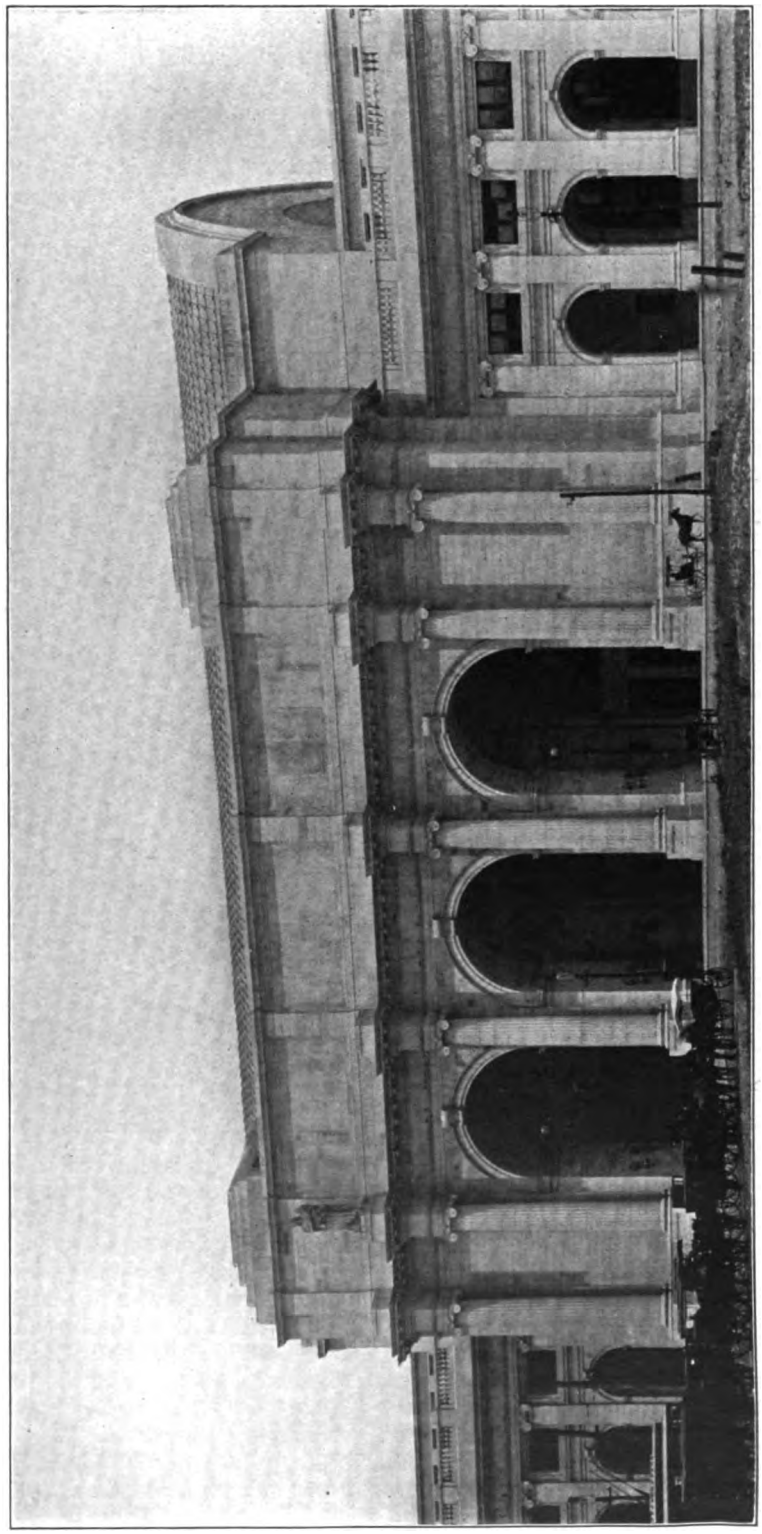
size of this building, great emphasis being placed upon the fact that it is fourteen feet longer than the Capitol, that its general waiting-room is the largest of its kind in the world, and that in its concourse could be mobilized the entire standing army of the United States, but the truth is that its size is not impressive. Such are its proportions and design that it does not over-awe the spectator or belittle its surroundings. Indeed, the average person will have some difficulty realizing its dimensions unless a common unit is taken for comparison.

The material of the Union Station is granite of extreme whiteness from Bethel, Vermont—a stone used prior to this in no great building, owing to the prejudice, not of builders, but of a former owner of the quarry. It was chosen, after careful investigation, not only for its strength but purity of color, and judged by the test of more than a year it promises to wear well. The roof, which



THE UNION STATION—PORTICO AND MAIN ENTRANCES.
Washington, D. C. D. H. Burnham & Co., Architects.

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THE UNION STATION—DETAIL OF CENTRAL PORTION.

D. H. Burnham & Co., Architects.

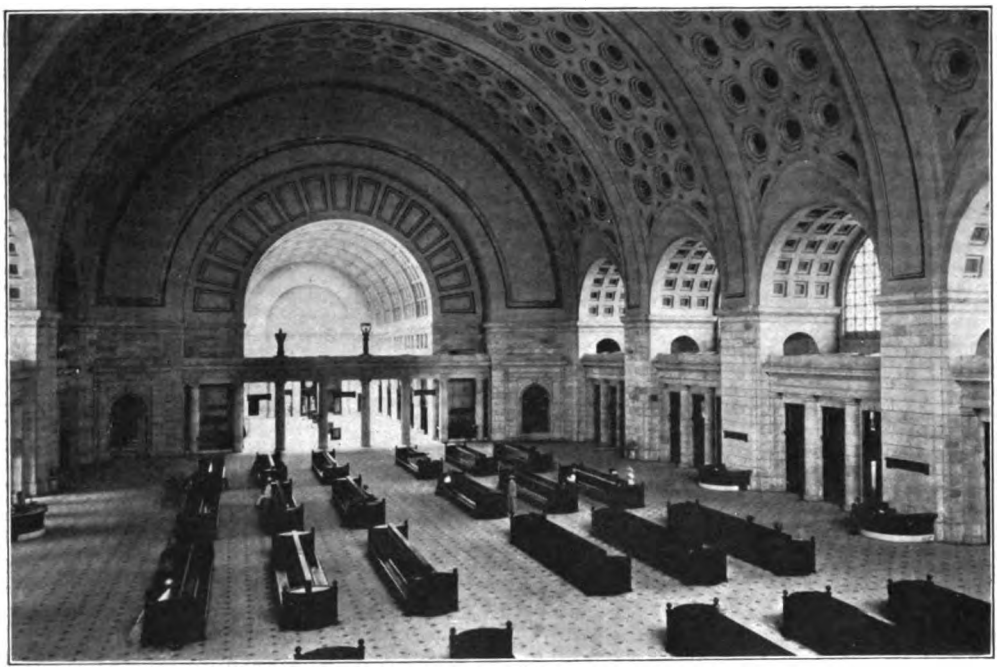
Washington, D. C.

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is a dominant feature, is covered with concrete tiles of an agreeable gray-green, which from the standpoint of service are also proving satisfactory, but as an æsthetic adjunct are fast becoming valueless, the merciless sun reducing them to a greenish drab—not offensive, to be sure, but not especially pleasing.

Such a vast amount has been written about this building since it was projected, and so closely does it conform to the description given by Mr. Starrett in this magazine three years ago, when it was scarcely begun, that it seems unnecessary now to enter into detail, and but a few of the special features may profitably be considered. One of these, undoubtedly, is the open air portico, or loggia, which connects the central vestibule and end pavilions, and with them constitutes a continuous running porch along the front of the entire building, a distance of considerably over six hundred feet, affording shelter from the elements, and long, delightful vistas. The spacious loftiness of the main vestibule, the arches of which are fifty feet in height, impresses the traveler immediately, and the long, cloisterlike corridors, to the right and left, with their alternate lights and shadows and lowered roofs, bring to him a sense of protection and peace. Perhaps one or two centuries from now when Washington has grown up to this station the environment thus created may cease to make itself felt, but it does not seem probable.

From the central vestibule the general waiting room is entered. This is 220 feet in length and 130 feet in width, and is covered by a Roman barrel vault, 90 feet in height, decorated with sunken coffers after the manner of the Baths of Diocletian. At her greatest, Imperial Rome had no such hall as this. Its spaciousness is delightful—its treatment most attractive. A feeling of bigness is imparted to those who enter—an inclination to throw back the shoulders and hold up the head. Opening from this great hall to the east are the lunch room,



THE UNION STATION—GENERAL WAITING ROOM LOOKING TOWARDS TICKET OFFICES AND LOBBY.

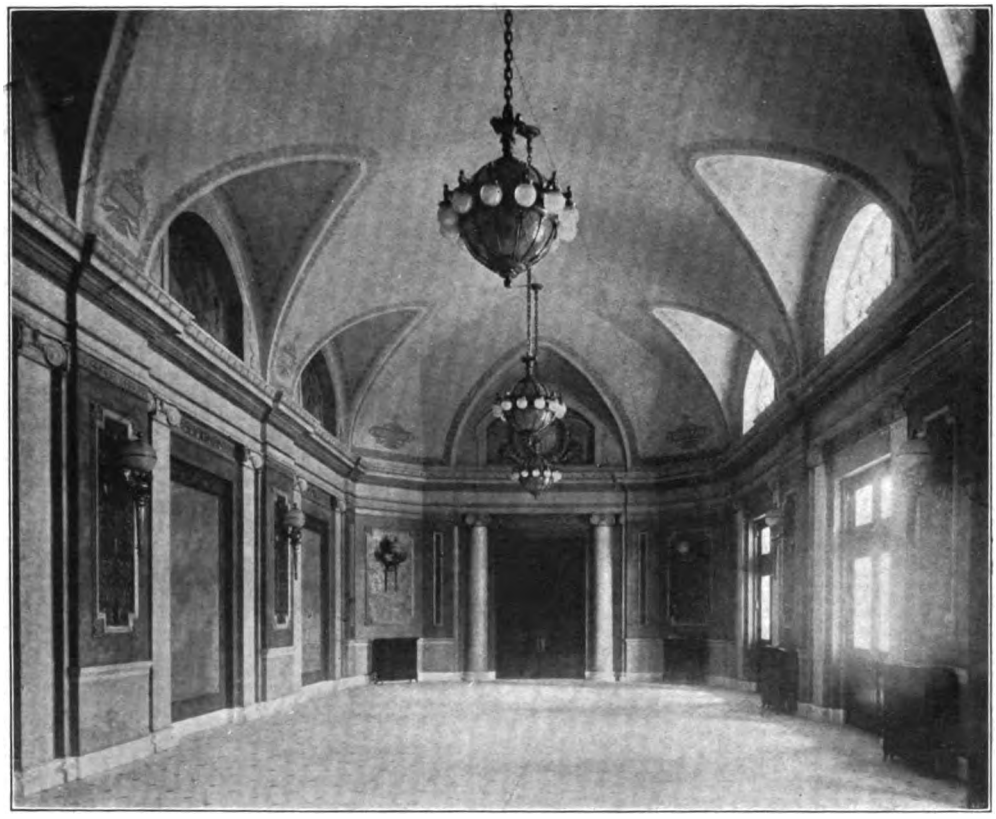
Washington, D. C. D. H. Burnham & Co., Architects.

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the dining-room, and the women's waiting room, and to the west, through a short colonnade, the lobby, fifty feet wide, on opposite sides of which are located the ticket offices, baggage rooms, etc. The convenience of this arrangement is obvious; the logic and economy in thus distributing space patent to all. Special attention, should, however, be called to the excellent way in which the general waiting room is lighted; by day through a semi-circular window, 75 feet in diameter, at either end of the hall, and five semi-circular windows, 30 feet in diameter, on each side; and at night by 180 inverted arc lamps concealed in the alcoves of the balconies over the vestibules on the north and south sides of the room. No more beautiful artificial illumination can be imagined than this which seems to penetrate to every corner—to literally flood the entire hall—and yet is without glare.

A word, too, should be said of the electroliers used for this building, and especially of those in the porticos which, while unusual, are particularly good in design and admirably in keeping with the architecture. These are small things, to be sure, but it is often times the small things which count, assisting materially, or militating against, the effect as a whole. It is, in fact, in connection with these so-called "small things" that the gravest adverse criticism in regard to this building will be made—that is, for the use of imitation marble for interior decoration and imitation terra cotta tiles for facing the wall of the concourse—so noble an edifice should be genuine throughout.

Fortunately, the majority of the mu-

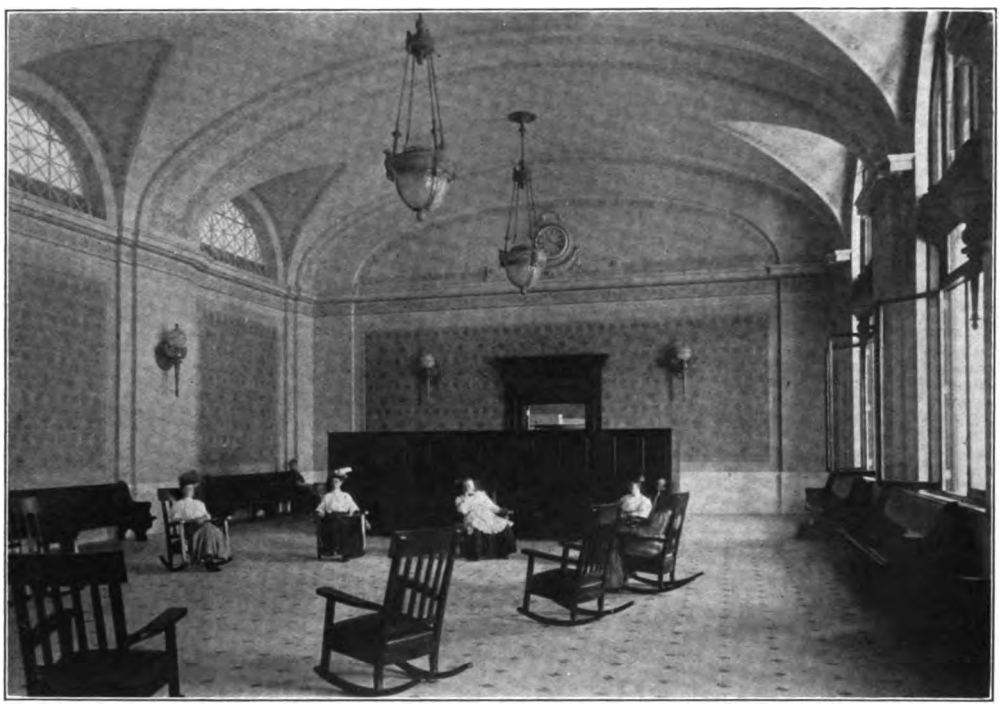


THE UNION STATION—STATE RECEPTION ROOM.
Washington, D. C. D. H. Burnham & Co., Architects.

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ral decorations are good, quiet in color and conventional in design, the dining-room, in which the Pompeian style has been followed, alone offending. The sculpture for the building is not yet completed, but it will be the work of Louis Saint Gaudens, and should be good.

And still nothing has been said of some of the unique features of the Union Station; of the State suite, situated at the extreme east end of the building, of shortness of time occupied in its execution is little less than miraculous. In 1903, when the site upon which this monumental gateway stands was authorized by Congress, it was occupied by dwelling houses, coal yards, and railroad tracks, all of which had to be removed before the work of filling and leveling could be begun—in November, 1907, trains were running into this station, though not until July of the present year, was it by any means completed.



THE UNION STATION—WOMEN'S WAITING ROOM.
Washington, D. C. D. H. Burnham & Co., Architects.

the invalids' room, the mortuary chapel, the club rooms for the railroad employees, which, with the administrative offices, are on the upper floor of the building; nor will space permit more than the bare mention of the fact that here an innovation has been made in the substitution of platform shelters for the large span train-shed which, until now, has been thought quite indispensable.

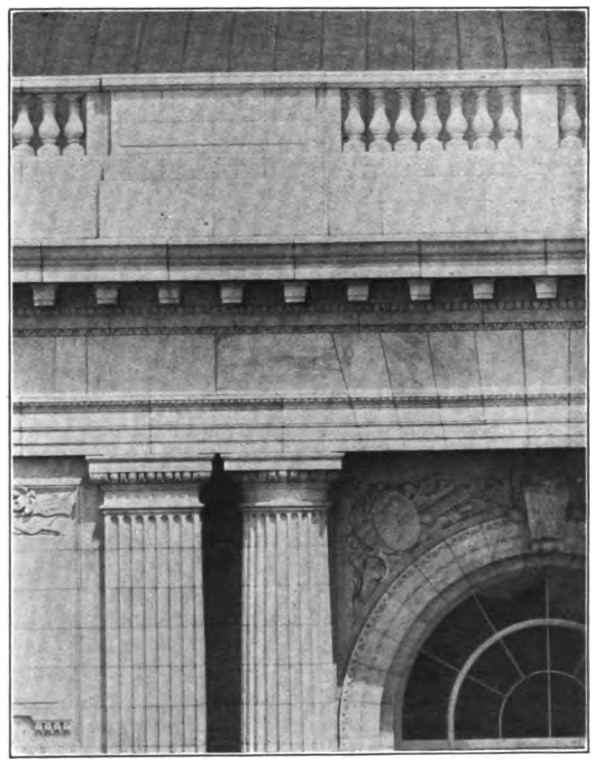
The Union Station and its approaches represent a tremendous expenditure not merely of money but of labor, and the This work has been done by the Washington Terminal Company, owned jointly by the Pennsylvania, and Baltimore & Ohio railroads, the former building the tunnel under Capitol Hill through which pass all trains going south, and the plaza, while the latter was responsible for the construction of the station proper, the express buildings, power house, shops and northern approaches. And still much remains to be done—the entire work of grading has not been completed, nor has the plaza been

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adorned. At present the station stands in the midst of a desert, being surrounded on all sides by wide areas of brown dirt recently upturned, or deposited, and left to settle. That it should appear to any advantage is, therefore, little short of remarkable, and that its effect will be greatly enhanced by the construction of the plaza can be readily understood.

The plaza is, in itself, an interesting feature. As it is planned it is to be 1,000 feet long and 500 feet wide, and will be decorated with terraces, balustrades and fountains. The Columbus Memorial, for which Congress has appropriated $100,000 (and a competition will be held next December), is to be located here at the front of a semi-circular platform. It is to take the form of a fountain, Columbus standing against a column on the prow of a ship which protrudes into a semi-circular basin backed by a low wall, the architectural features of which have been designed by Mr. Burnham. At the extreme ends of this same platform, terminating the semi-circle, are to be fountains conventional in design recalling the fountain in the court of the Barbarini Palace, at Rome, and between these, on the straight side, will be placed three ornamental flagstaffs, which with their floating banners will give a note of color and gayety to the scene.

The placing of the Union Station on this site has not only freed the Mall of tracks and train sheds, but has redeemed a heretofore unattractive section of the city. At the last session of Congress a bill was introduced to buy all the land lying between the new Union Station and the Capitol, and devote it to public uses. No action was taken upon it, but it was favorably reported and will in all probability, ultimately be passed. Thus it will be seen that the object lesson has not been wasted—that, as Secretary Root has said, the architects are beginning to have the Nation with them.



HOUSE OF REPRESENTATIVES OFFICE BUILDING—DETAIL OF ORDER.

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III.

The District Building.

Not only has a great gateway been built for the National Capital, but a new office building for those who administer the affairs of the District of Columbia. On July 4, the Municipal or "District Building," as it is more commonly called, designed by Messrs. Cope & Stewardson, which, for the past five years, has been in course of construction, was opened with unusual ceremony.

This building occupies an entire block and is situated south of Pennsylvania Avenue, between E and D, 13½ and 14th Streets. It has on the first two streets a frontage of 243 feet, and on the last two a frontage of 193 feet, while its height from sidewalk to top of parapet wall is 100 feet. It is of wall-bearing construction, and the material above the base, which is of warm gray granite from Blue Hill, Me., is of specially selected creamy white marble from South Dover, New York, the same as that used in the construction of the House Office Building. Two million five hundred thousand dollars were appropriated for it, but this included the purchase of the site and expense of excavations which was unusually heavy owing to the fact that this block had been previously occupied by a power house which had been destroyed by fire; so the actual cost of the completed building is reckoned at $1,750,000, including architects' fees and cost of supervision by government officials, an army engineer being at all times in charge of construction.

The design was obtained through a competition and selected by a jury composed of the Supervisor of Construction Major Chester Harding, later succeeded by Capt. William Kelly; the Supervising Architect of the Treasury Department, Mr. James Knox Taylor; and Messrs. D. H. Burnham, George B. Post and Robert S. Peabody. The programme of competition required a Classic design in the manner of the English Renaissance and the building, as it now stands, is fairly well described architecturally under this head, though it mingles with the English a suggestion of the French and manifests throughout a flavoring of Gothic. Externally it is extremely ornate, its surfaces being broken into many units and much enlivened by decoration. It shows a high Corinthian order resting on a strongly rusticated base and supporting an attic. The first story is in the base, the second, third and fourth are inclosed in the Corinthian order, and the fifth, which, oddly enough, is the floor of principal importance, is in the attic. The main entrance is at the center of the front facing Pennsylvania Avenue, and is somewhat imposing, being of fair proportions and surmounted, as are the columns, by statuary. Later it is intended that it shall be flanked by sculptured groups. This entrance is approached by a wide flight of granite steps and leads, through an elaborately ornamented vestibule and triple doorway, into the main hall. Facing this doorway is a large triple window, in which stained glass might have been effectively used, and to the right and left of which ascend the grand stairs. A wide corridor, on either side of which open the offices, runs east and west to the wings and thence southward to the rear.

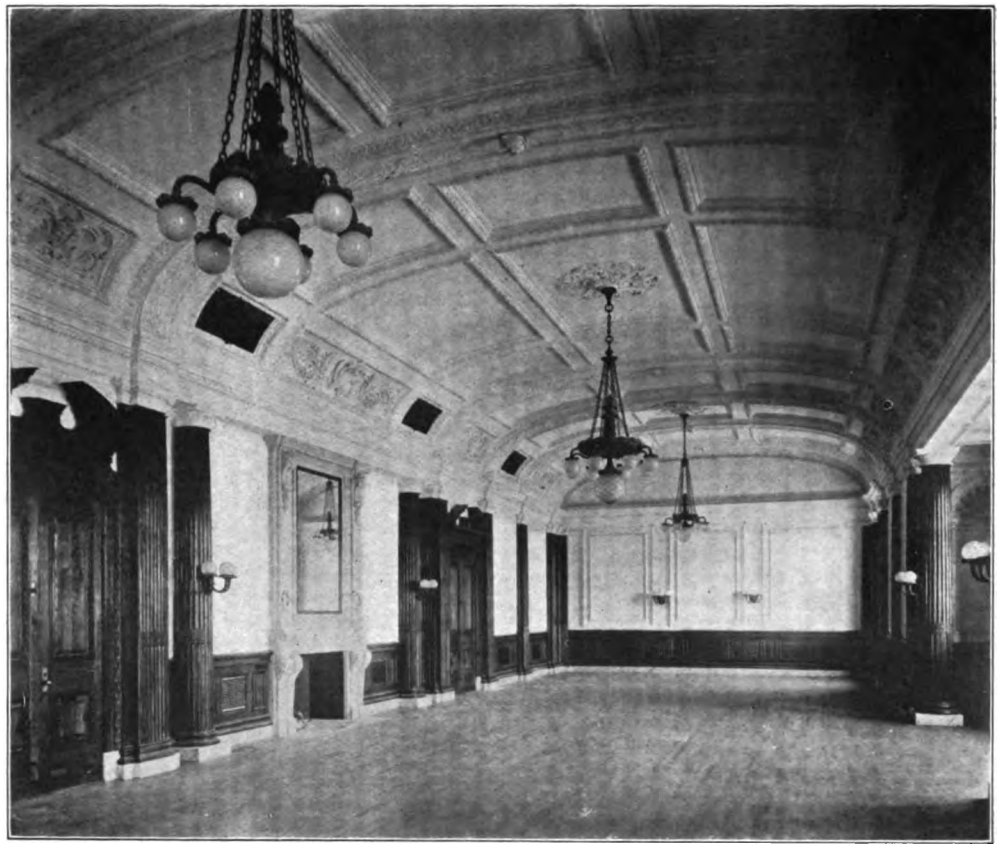
The amount of floor space originally required would have necessitated the enclosure of the court on all sides, but certain modifications permitted this court to be open on the south above the first floor so that the plan of the four upper floors is U-shaped. This admits light and air to the rooms on the court and makes them in no wise less agreeable than those overlooking the streets.

With the exception of the main hall and stair, and the entrance vestibule on the first floor of the building, which have been treated in marble, and the Public Hall and Commissioners' suites on the fifth floor, the interior of this building is comparatively plain and simple as befits its function. The floors of the corridors are white terrazzo with borders of Knoxville marble; the wood-

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work in the offices throughout is natural finished pine. Perhaps it may be felt that there is a little too much difference between certain parts of this building, too much elaboration in spots, but at least, fault will not be found with the plainness of that portion set aside for the working force.

Originally it was intended that the Public Hall or "Board Room," which is used for hearings before the Commissioners, receptions, and the like, should occupy the center of the court on the first story, but it has, instead, been placed along the front in the fifth story, at the corners of which are located suites consisting of two rooms, toilet and bath, for each of the three Commissioners, who in Washington jointly perform the duties of a mayor. This hall is 52 by 22 feet in dimensions and has an eliptical, vaulted ceiling, supported on columns and pilasters. Its windows are set in deep alcoves, or bays, and admission is gained to it through two double doors flanking a fireplace. The woodwork is natural finished butternut and is elaborately hand carved. Possibly this room is consistent in design, but it suggests an apartment in a private residence intended for unconventional functions, rather than one in a public building where ceremony must be the rule. The Commissioners' rooms, which are finished rather lavishly in white oak, are open to the same criticism, though with more excuse, as they are in a measure for private occupancy.



DISTRICT OF COLUMBIA BUILDING—PUBLIC HALL.
Washington, D. C. Cope & Stewardson, Architects.

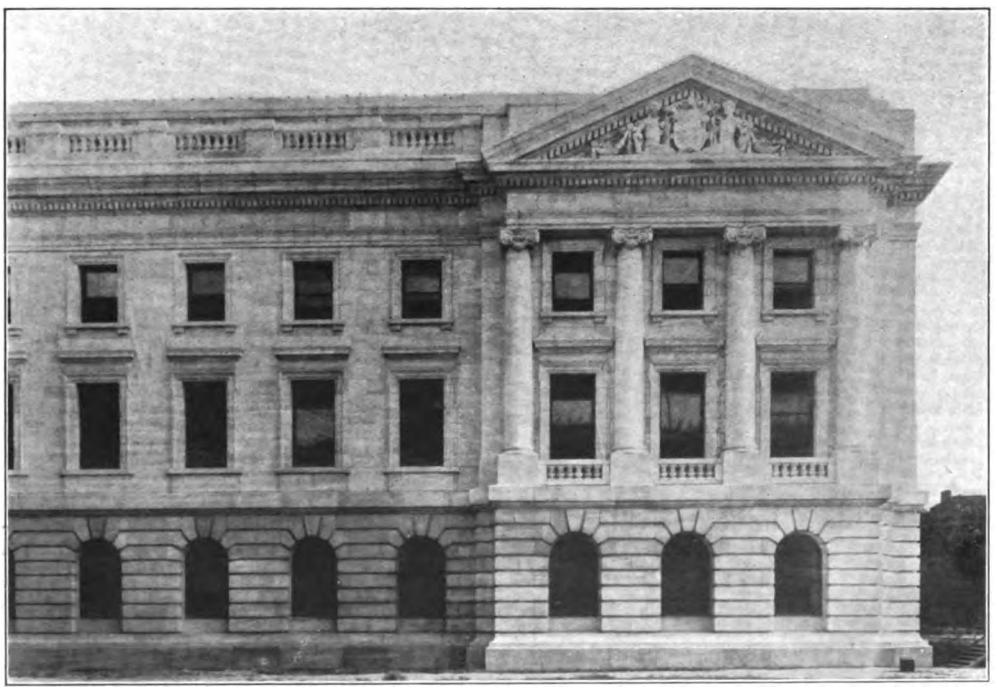
The treatment of the main hall is interesting and rather unusual. The

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walls have been faced to a considerable height with marble, and the ceiling, which is of sunken panels, is supported by Ionic columns bonding into this wainscot. These columns are monolithic, but have been marked off in drums, and the lintels over the main doorway are single stones similarly marked in voussoirs. Over the inner doors are heavy broken pediments.

The tendency to overelaborate is felt not only in certain parts of the interior of this building, but in the exterior, which, while impressive, is rather restless in expression and inclined to fussiness. Taken bit by bit, it is good; but as a mass it does not build up well. Viewed from an eminence so that its red-tiled roof can be seen, it is truly effective; but from the level of the street it does not terminate satisfactorily, and its attic story seems weak. It has been said that American architects do not sufficiently appreciate the sky and take proper pains to "serve it up" attractively, and, it must be confessed, this building gives some ground for the charge. Immensely in its favor, however, are the facts that its floor plans are eminently good, and that all its façades are equally well studied and attractive, the rear no less finished than the front. In any criticism of this building, moreover, it should be remembered that the architects who designed it, and to whose credit stand some of the finest university buildings which have been erected in America, if not in our time, died very shortly after the commission was awarded, and that the work of elaborating and carrying out the plans devolved upon those who had not originally conceived them.

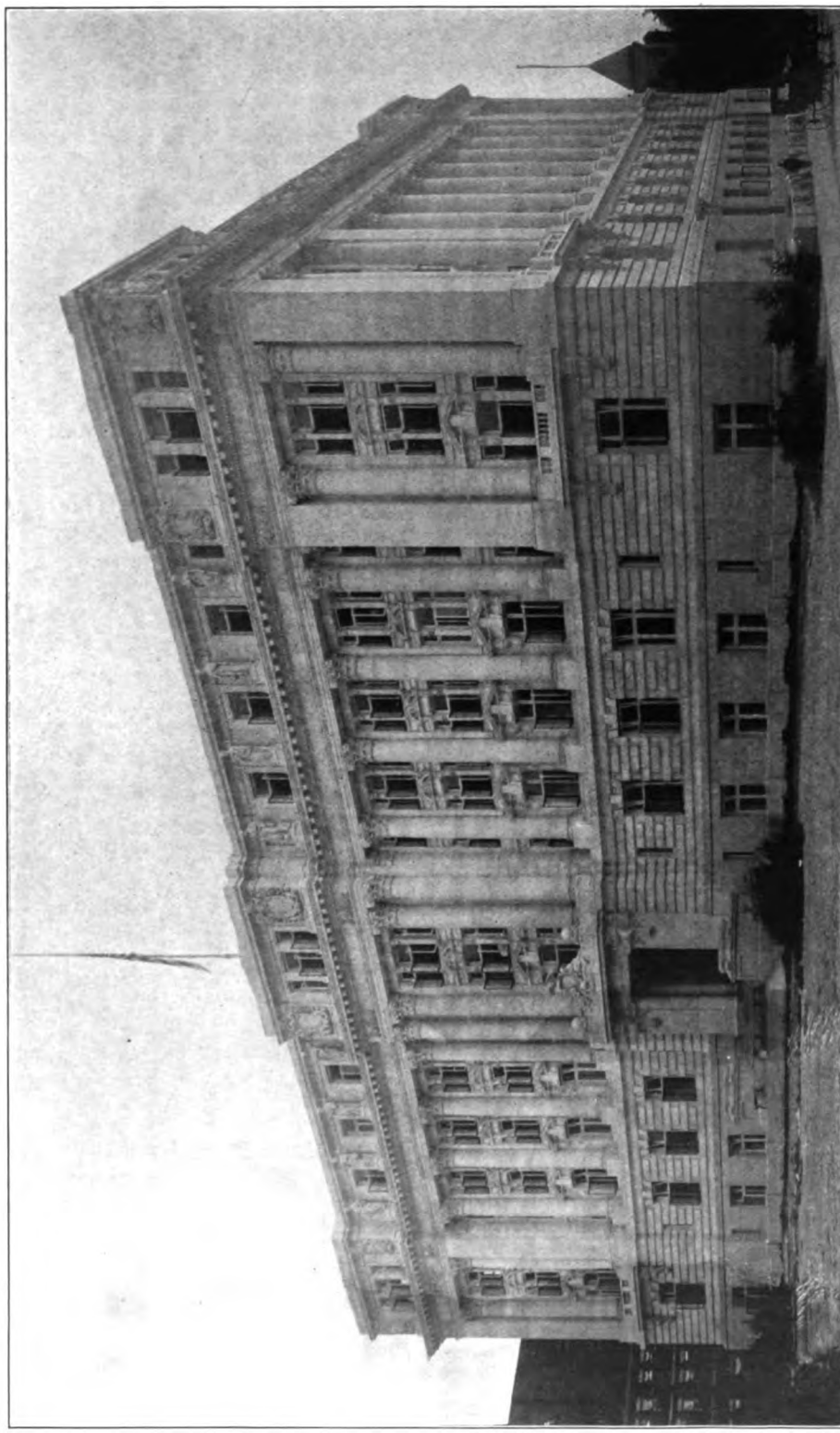
Probably had Messrs. Cope and Stewardson lived changes would have been made in the design from time to time, while the building was in course of erection, which would have materially improved it; and very possibly had their successors been the authors of the design they, too, would have handled it quite differently.



DEPARTMENT OF AGRICULTURE BUILDING—PORTION OF SOUTH FAÇADE, LABORATORY "B."

Washington, D. C. Rankin, Kellogg & Crane, Architects.

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DISTRICT OF COLUMBIA BUILDING—FAÇADE.

Washington, D. C. Cope & Stewardson, Architects.

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IV.

The Department of Agriculture.

On that stretch of land known as the Mall, which lies south of Pennsylvania Avenue, between the Capitol and the Washington Monument, and was laid off by L'Enfant as a setting for public buildings, two fine edifices are now being erected—a new home for the Department of Agriculture and a new National Museum. I say "being erected," in spite of the fact that the former has been occupied since March, for only a portion of the design has been executed and the building, as a whole, will not be complete until the laboratories, now standing, are connected by an administrative building for which at present no appropriation has been made.

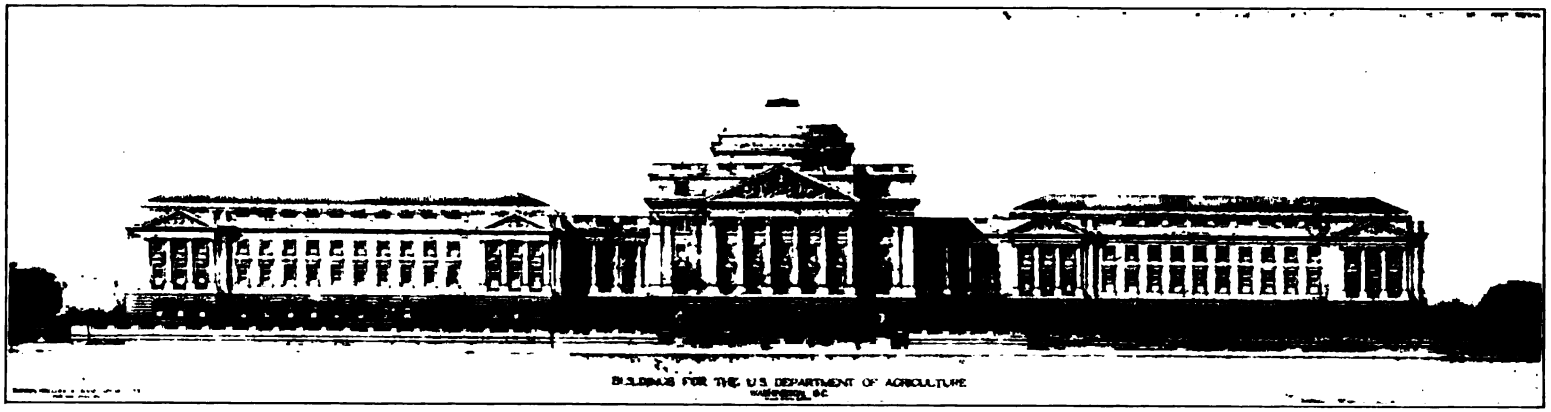
Both the new Department of Agriculture and the new National Museum have been located in accordance with the plan of the Park Commission, which proposes the opening of a wide vista from the Capitol to the Monument, and requires that all buildings erected on the Mall shall be placed north and south of fixed lines. For this reason neither building has at present suitable setting or approach, but the possibility of future improvement has not been impaired. Furthermore, the two have to a degree been studied relatively, as units in a large composition, and in order to preserve uniformity, in roof line the one has been unduly lowered and the other raised. By some the advisibility of thus following a plan which has not been officially adopted, and may, therefore, never be carried out, has been questioned; but if this section of the city was to be developed homogeneously some plan had to be followed, and none other seemed as logical and satisfactory as this, to which expert city builders in all parts of the world have given hearty endorsement.

In many ways the building for the Department of Agriculture has occasioned much controversy. In the first place, there was trouble about the site; in the second place, embarrassment in regard to the appropriation. One million five hundred thousand dollars were appropriated by Congress to cover its entire cost, and with the utmost economy, it was estimated, that the expense of erection would be double this amount. This was, of course, provided the best materials be used and a good design adopted. After mature reflection it was decided that a good half was better than a poor whole, and that the work that was done should be permanent in character and worthy of the nation. Hence only a portion of the design chosen was executed, and the remainder left. An additional appropriation of $1,500,000 for the erection of the central portion has been asked, but not granted, and for the present the old building will be used in lieu of this for administrative offices.

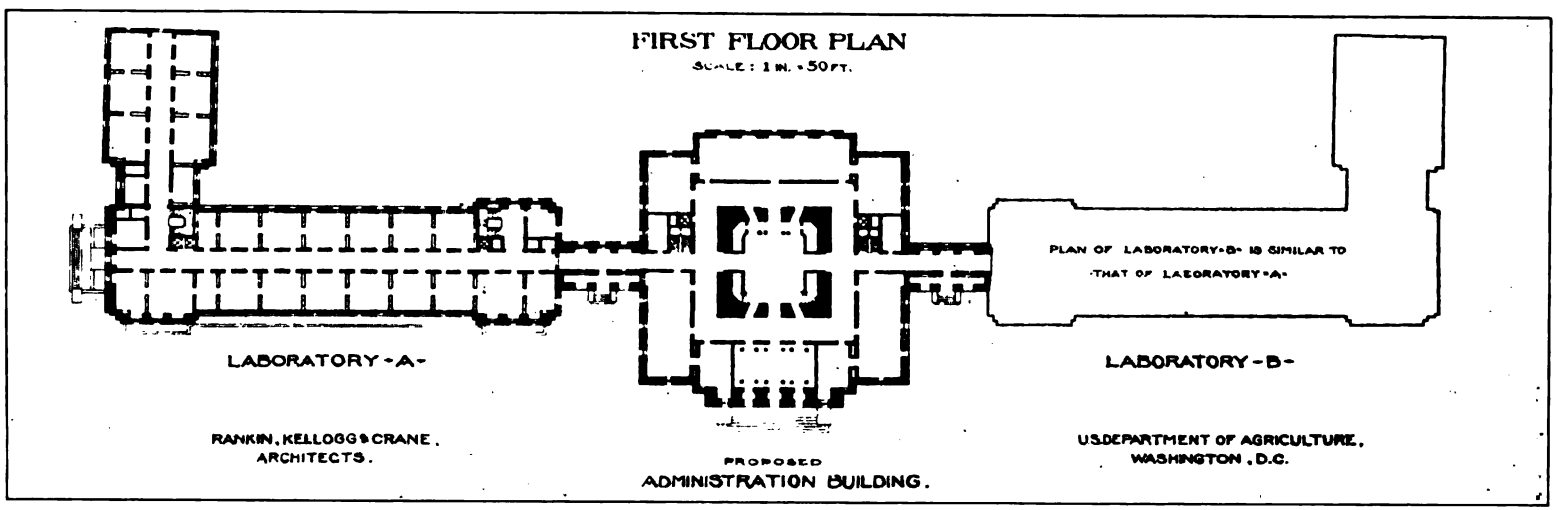
The design which was selected for the Department of Agriculture is by Rankin, Kellogg & Crane, and is dignified and effective. It shows a large central building, surmounted by a dome and connected with two subordinate buildings which extend for a considerable distance to the right and left. These have plain façades, pierced by windows in regular rows and terminated by pavilions somewhat classic in design. Architecturally, they are divided into three parts—a strongly rusticated base in which is the first story, the main section in which are two stories tied together in the pavilions by a Corinthian order supporting an entablature and pediment, and an attic, in which is a fourth story, screened by a balustrade and blind wall. The frontage, when completed, will be 750 feet; the material employed for the base is Medford granite, for the superstructure Vermont marble, and for the roof red tiles.

The laboratories, which are completed, are each 256 feet long by 60 feet wide, and have each a rear wing 100 feet long by 60 feet wide on opposite sides, the object being eventually to continue the buildings around courts and thus double their capacity. The unit plan has been observed from first

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ELEVATION.



Washington, D. C. BUILDINGS FOR THE DEPARTMENT OF AGRICULTURE. Rankin, Kellogg & Crane, Architects.

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to last—each building, while a part of the large design, being complete in itself, and every room being made capable of entire isolation.

The interior of these buildings is very plain. The floors of the corridors are white terrazzo with marble borders; the stairs are marble, but without paneling; the walls are white plaster, and have neither wainscot nor cornice, and yet the appearance is not homely nor unpleasing—unnecessary economy or poverty is not suggested. Much attention has been paid to the mechanical equipment, to the ventilation, heating and laboratory requisites for each room. The air, before being introduced into the rooms, is washed, to eliminate all dirt and dust, and the supply is automatically controlled to give the desired temperature and ventilation. Pipes for hot, cold and distilled water, steam, gas, compressed air and vacuum have outlets in every room; in the corridors are connections for drinking fountains of distilled water; and in each story inlets for the vacuum cleaning system.

The first three floors are identical, but the fourth shows a slight deviation, the corridor being narrowed and the rooms set back in order to give space for the balustrade and curtain wall—a concession from the scientists to the architects, of utility to external charm. Not that this impairs the usefulness of this fourth story, but merely limits the available space. Indeed, in every particular service seems to have been primarily regarded in these buildings, and no pains spared to insure convenience for the workers.

This union of conservatism and sound sense is manifested not only in the interiors, but the exteriors, which, while simple, are essentially impressive. Indeed, in these façades there is a pleasing frankness and sincerity—an air of grave serviceability, of permanence and maturity.

Their lines are strong and firm; large stones are used appropriately; familiar motives handled with agreeable directness. They have character, power and individuality.

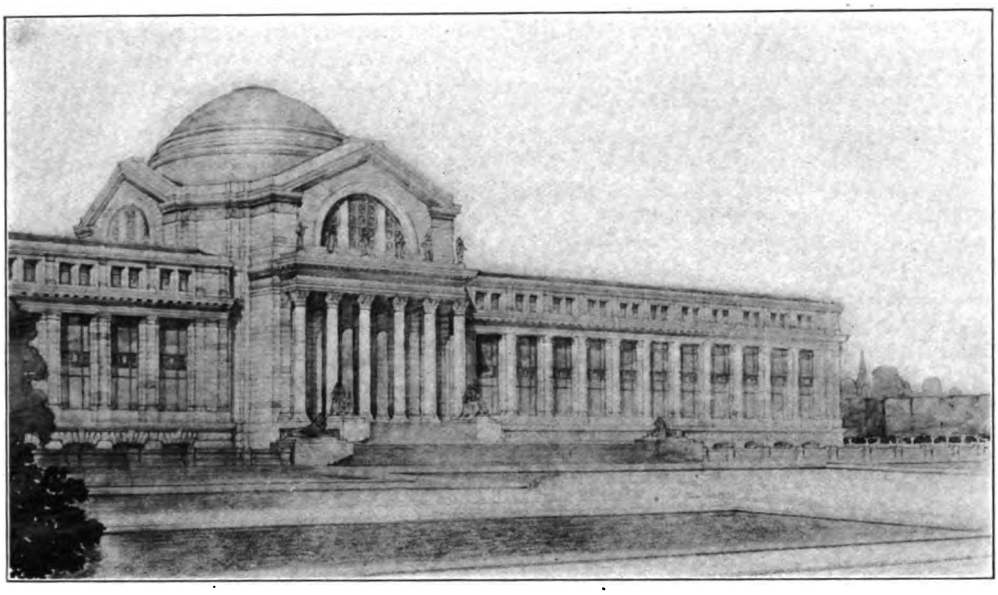
V.

The National Museum.

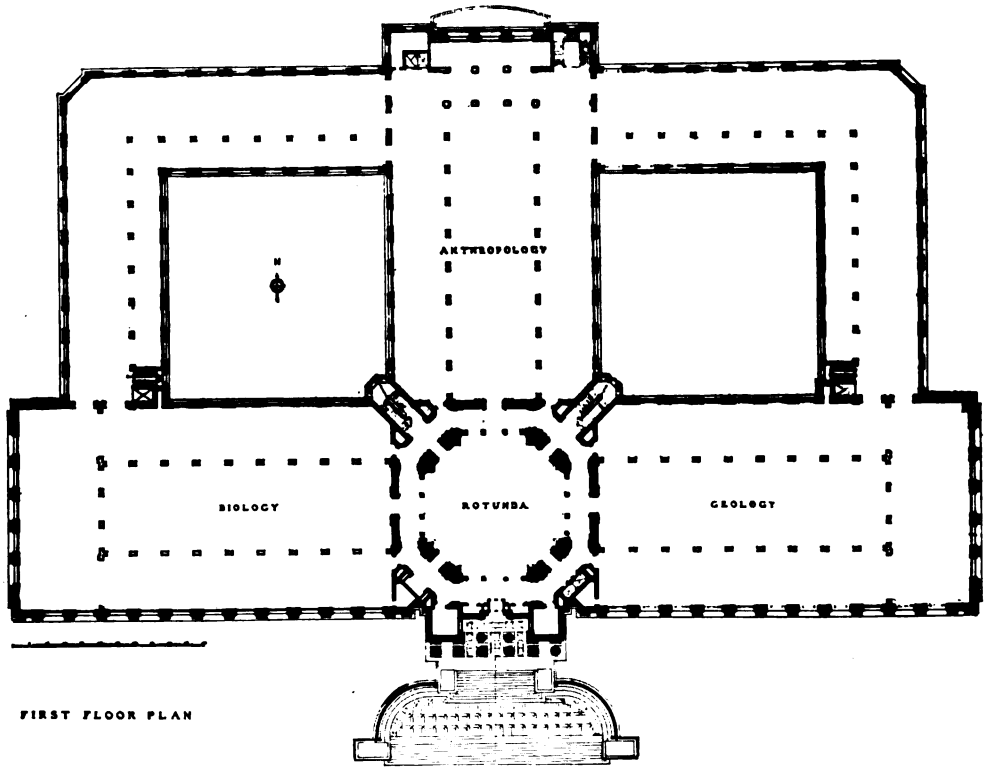
The new National Museum shares with the Department of Agriculture many of these traits. While outwardly simple, it represents, on the part of the architects, Messrs. Hornblower & Marshall, the result of tireless study, coupled with long experience, which are manifested in an apparent ease of execution and authoritative utterance. This building, which will be finished by the first of January, will be one of the largest in Washington, being 561 feet by 365 feet, and affording no less than ten acres of floor space. It is located on the north side of the Mall, between Ninth and Eleventh streets, and will cost $3,500,000. In design it is monumental, following classic tradition, but being freely interpreted to suit present and particular needs. It is four stories in height, and will be crowned by a dome which surmounts its entrance pavilion. This pavilion has a Corinthian portico, the columns of which are interestingly derived from those in the Temple of Jupiter Stator, at Rome; and the walls of the main building are so divided by the long windows which extend through two stories and are regularly repeated that they have the appearance of long rows of pilasters supporting the cornice and attic.

The construction of the building is fireproof throughout. The exterior walls are of white granite, backed with brick, and the court walls of cream-colored hard brick, trimmed with granite. The interior structure is of heavy steel frame, with floors and fireproofing of brick and terra cotta; and the roof is of steel with covering of terra cotta and reinforced concrete, waterproofed with copper and heavy green slate. The granite of the exterior walls has been derived from three different quarries—that used in the base from Milford, Mass.; that in the two main stories from Bethel, Ver-

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A PORTION OF THE FAÇADE.



FIRST FLOOR PLAN—THE NATIONAL MUSEUM.

Washington, D. C. Hornblower & Marshall, Architects.

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mont; and that in the attic from Mt. Airy, North Carolina; whereas that employed for the court wall is blue-white from Woodstock, Maryland. The floors of the building are for the most part of warehouse strength in order to carry exceptional burdens if necessary, and are to be finished in marble mosaic, yellowish in color, low in tone.

As this building was designed primarily for exhibition purposes, its plan is simple and shows a succession of large halls opening one into another, invariably well lighted by windows on either side, and spacious skylights above. In the center these halls extend through two stories and are overlooked by balconies on the second floor. In the basement are storage rooms; in the attic laboratories and workrooms; and in order to economize space (ten acres being already none too much for the proper installation of exhibits), a grand staircase has, in this building, been altogether omitted, elevators and several small, inconspicuous stairs being substituted in its place.

The main feature of the building, architecturally, is the rotunda, which is 80 feet in diameter and 127 feet 7 inches in clear height, and is to be faced with Indiana limestone and surmounted by a dome of Guastavino work. Beneath this, in the basement, is an auditorium with a seating capacity of five hundred, artificially lighted, and specially designed for lectures and scientific meetings. This also is covered with an elliptical dome in Guastavino construction —the largest, it is believed, which has as yet been built.

Because the site selected for this building is only fourteen feet above mean tide, no cellar or sub-basement has been constructed, large covered communicating trenches merely being built in the basement floor to carry the pipes and conduits. The heating and power plants, quite naturally, are located on the basement floor. Hot-water heating will be used, and natural motion depended upon chiefly for ventilation.

The construction of this building was placed by Congress under the direction of Mr. Bernard R. Green, the superintendent of the Library of Congress. It has been over three years in process of erection, and when completed will take its place among the great buildings belonging to the nation. As a building for exhibition purposes it is eminently practical, but it has not been conceived from this standpoint alone—it is not only well planned, but a pictorial composition. Though vast in extent, it is distinctly a unit, so well is it proportioned, and so nicely is the relationship of its several parts adjusted. It, too, displays the use of large stones and manifests in its handling of material both a sense of fitness and an independence of conviction—a complete mastery of medium and theme.

As has already been stated, all of these new public buildings are classic in style, but it will be noted that in interpretation they differ widely, two following the French, two English, and two Roman tradition. Considering them collectively, certain broad facts are emphasized, certain potent tendencies remarked. Strongly they bear witness to the fact that we have emerged from the era of darkness which so long retarded the development of all branches of art in America; that we are less given than we were to excesses, more sane, more scholarly. Not that we have laid aside all tokens of barbarism, for some are still patent, but we are apparently beginning to think our own thoughts and meet our own needs, while adhering, in a measure, to precedent, and profiting by the experience of those who have gone before, and if we are ever to develop a national style in architecture will it not be in some such way as this?

Four years ago Mr. E. J. Parker, of Quincy, Ill., said, in a letter to Speaker Cannon: "In the District of Columbia is the nation's opportunity to illustrate the gospel of beauty and utility on an imperial scale," and, though Congress is still inclined to economize on the æsthetic side, it will be seen that in the erection of these six new buildings at least a beginning in this direction has been made, and one which bespeaks continuance.

Leila Mechlin.

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The House of Mr. John J. Chapman at Barrytown, N. Y.

Chas. A. Platt, Architect

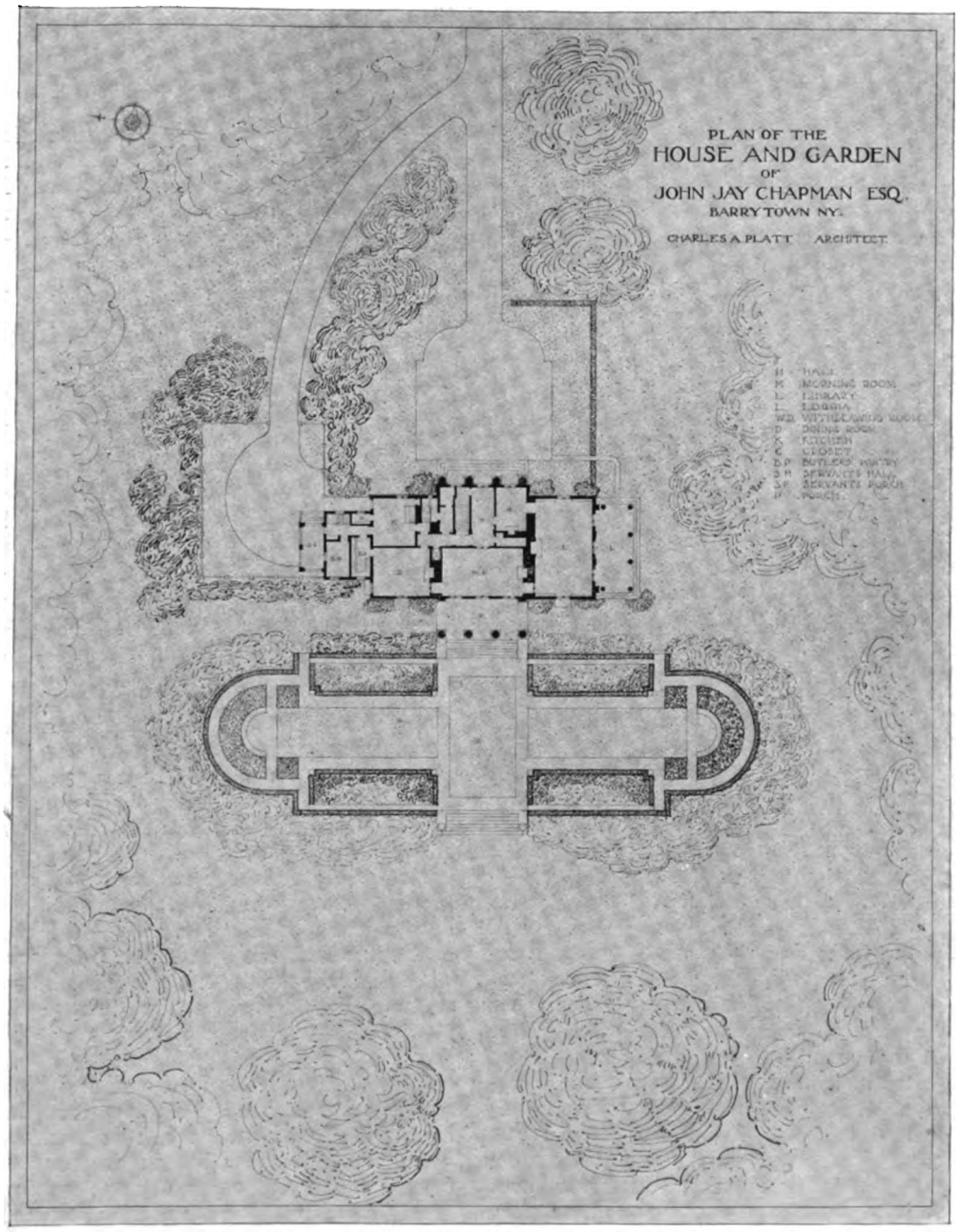
The landscape of the Hudson River valley is one of the few bits of selected American countryside, with which is associated a definite architectural tradition. It had its day of great popularity during the years preceding and succeeding the Civil War. For that generation of Americans it was peculiarly the country for a painter to study, for a sentimental traveller to visit, and for the residence of a man of taste; and most assuredly our fathers might have made a worse choice. The landscape of the Hudson River valley is typical of a rich, well-modelel, complicated countryside, with many levels, with an inexhaustible variety of aspect, with bold projections, and with all of its variations and levels composed and aligned by a broad and beautiful river. It is no wonder that our fathers liked it; and it is no wonder that the first American country houses were built on the sides of the hills sloping towards the river. The date of the erection of these houses determined their architectural style. In the fifth decade of the 19th century the Classic Revival had not spent its force; and our fathers showed their genuine American respect for a respectable tradition in art by dotting the valley with domesticated Parthenons—the result being that a sentimental German traveller a few years before the war, could wax poetic over the idea that the higher American home was literally a temple of domesticity.

In the house of Mr. John J. Chapman at Barrytown, the architect has sought to preserve and perpetuate this local tradition of style, while at the same time relieving it of its inconveniences and its architectural pompous tendency; and he had a special reason for this selection of style, because the site of the house demanded a building the scale of whose design was bold and large. This site consisted substantially of a spacious plateau, sloping towards the river, and covered particularly in the direction of the river by big, handsome evergreen trees. On such a site and in such surroundings any mere reticence of architectural effect would have looked insignificant; and the architect adopted, consequently, the large portico of the Classic Revival as the dominant feature of his design. It was desirable, moreover, that this portico should be placed on the west side of the house facing the river. The architect could work out on this basis a plan, which combined many architectural merits with many practical conveniences.

If the reader will consult the plan reproduced herewith he will soon understand what these advantages were. The house had to face west in the direction of the river, and the space on the plateau before the land begins to fall away more abruptly was used for a large terrace and garden, which in its dominant effect is more of a terrace than a garden. The purpose of the terrace is, of course, to afford a place from which the view of the river can be conveniently and advantageously enjoyed; and consequently the trees have been thinned out along a line determined by the middle of the portico and the cross axis of the terrace. The flower beds have been distributed around the border of the terrace in places detached from the view of the river.

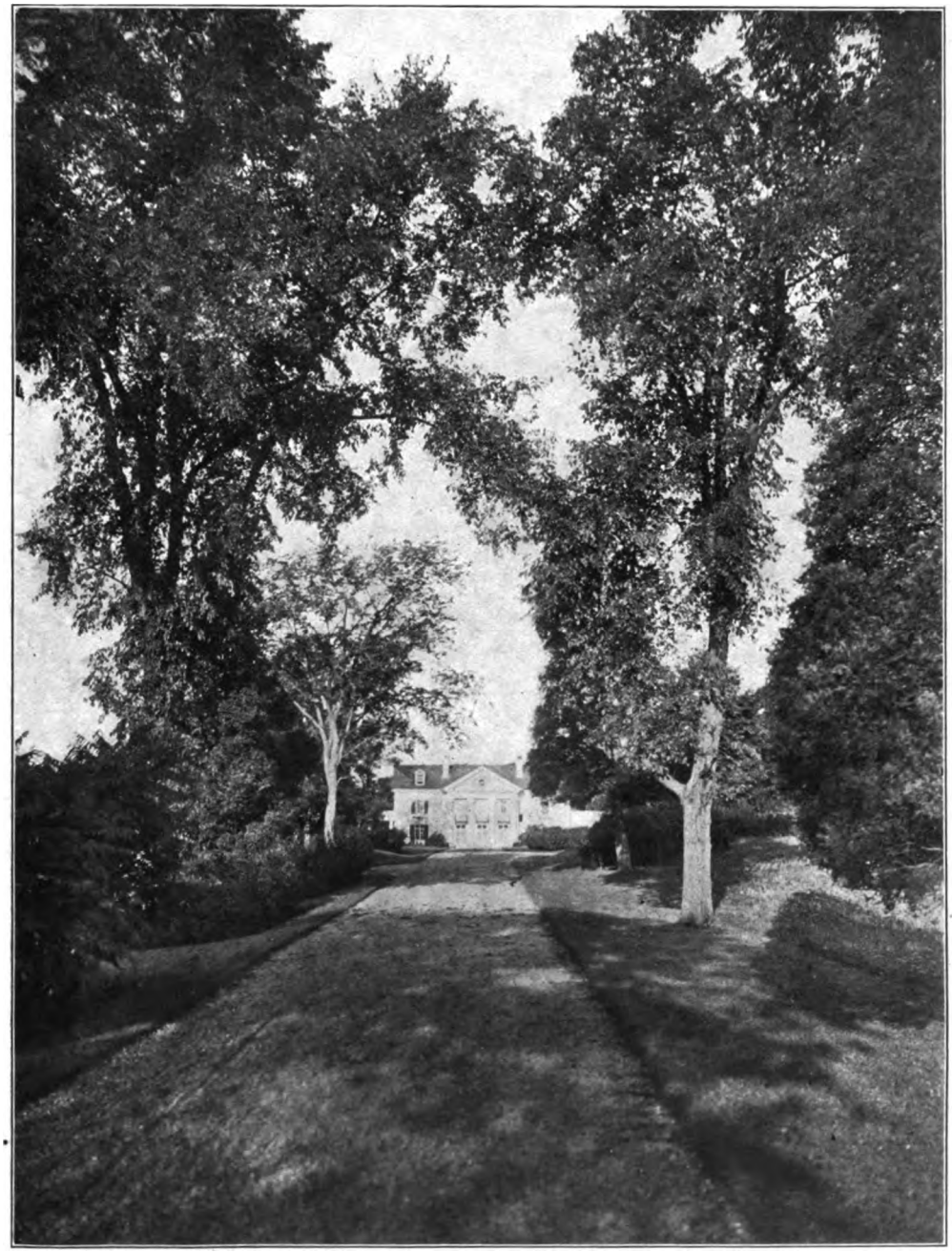
The chief objection to a plan which makes a house face west, turns upon the effect of the afternoon sun in summer upon the bedrooms; but in the present instance the inconvenience resulting from this cause has been much mitigated by the portico. The portico protects the rooms facing only or chiefly west from the rigor of the sun and in that particular location it serves, consequently, a

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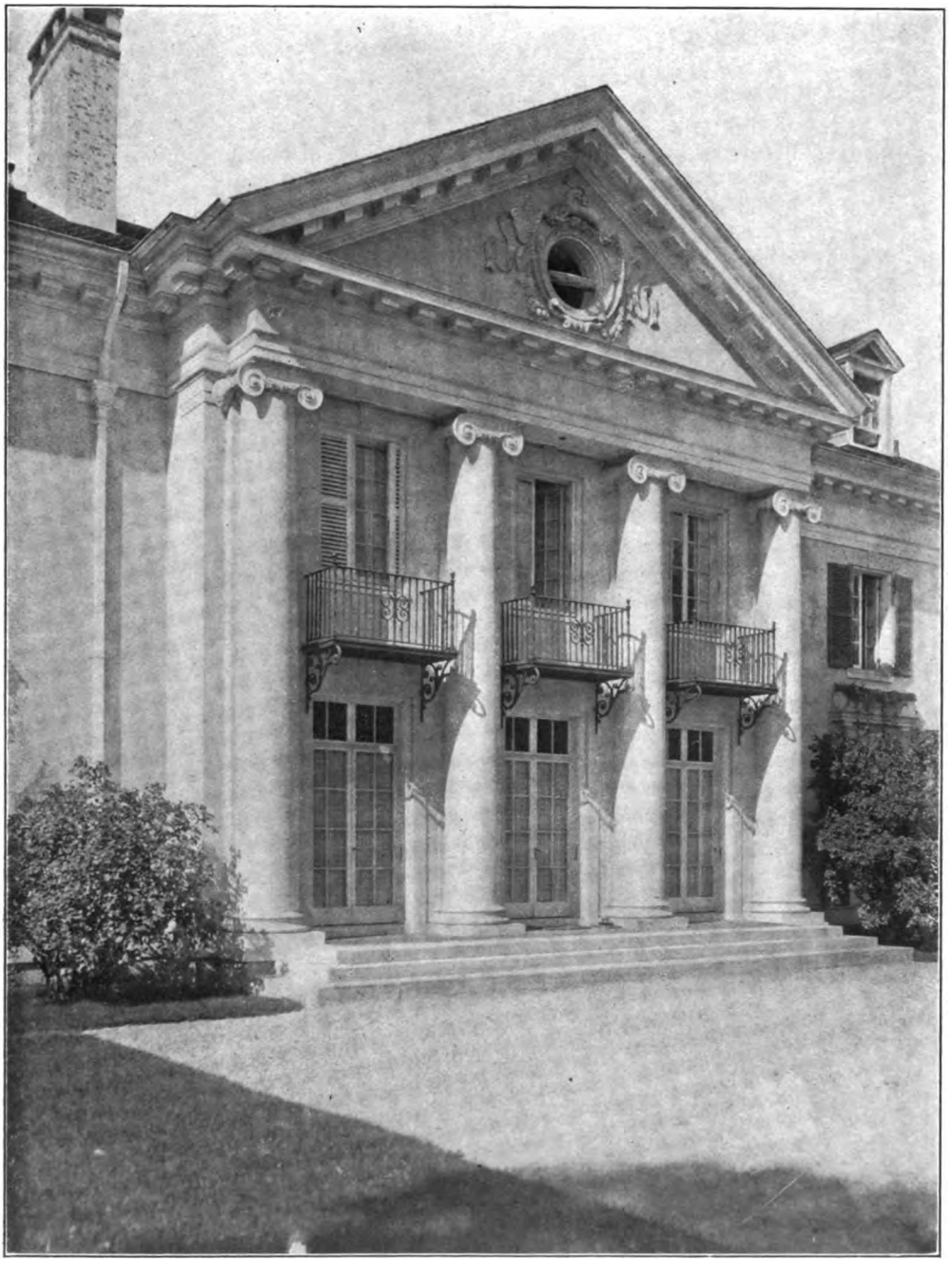
THE HOUSE AND GARDEN OF MR. JOHN J. CHAPMAN.
Barrytown, N. Y. **Charles A. Platt, Architect.**

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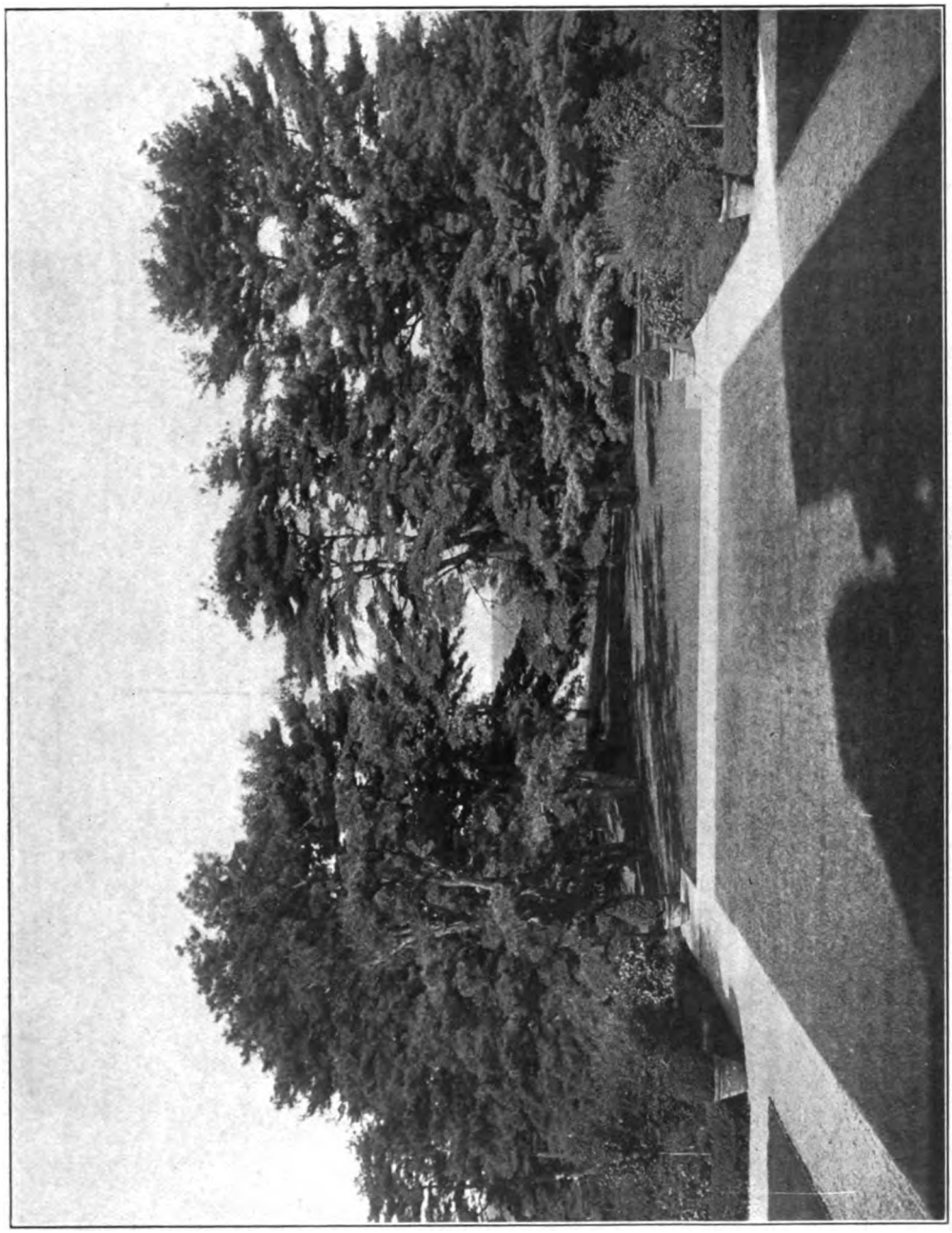
THE HOUSE OF MR. JOHN J. CHAPMAN—DRIVEWAY AND APPROACH.
Barrytown, N. Y. Charles A. Platt, Architect.

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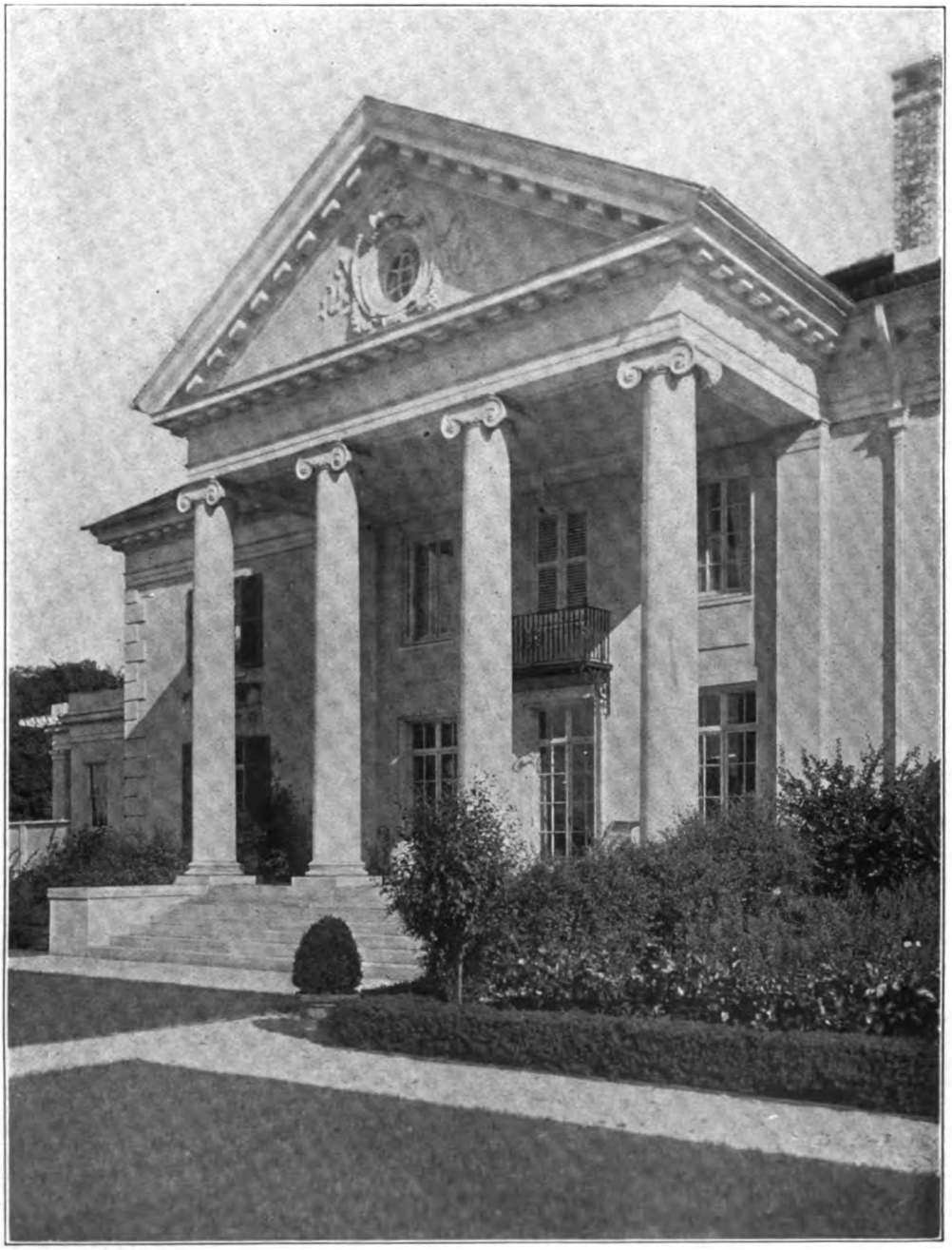
HOUSE OF MR. JOHN J. CHAPMAN—THE PORTICO ON THE WEST SIDE.
Barrytown, N. Y. Charles A. Platt, Architect.

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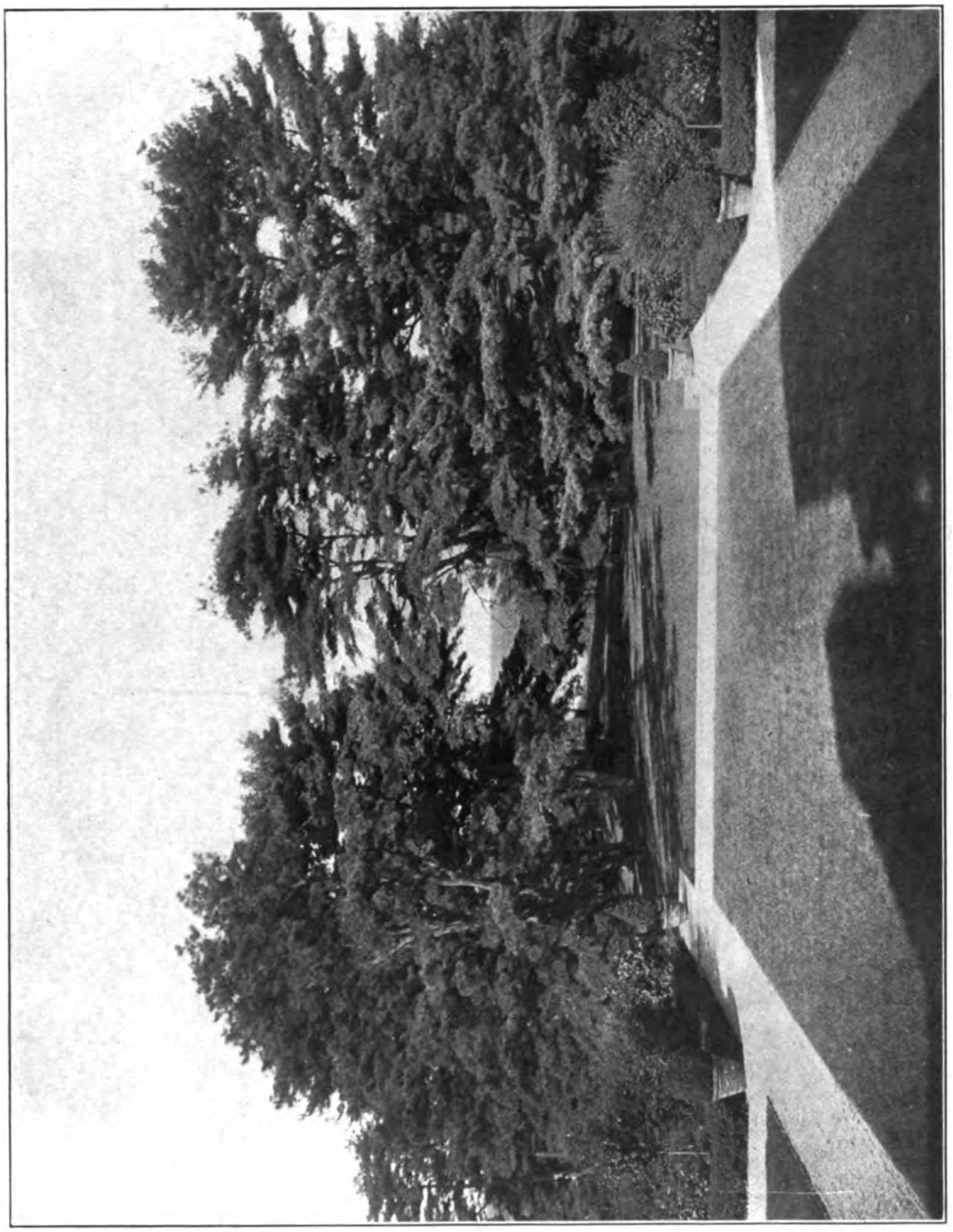
GARDEN OF MR. JOHN J. CHAPMAN—THE VIEW LOOKING WEST TOWARDS THE HUDSON RIVER.
Barrytown, N. Y. Charles A. Platt, Architect.

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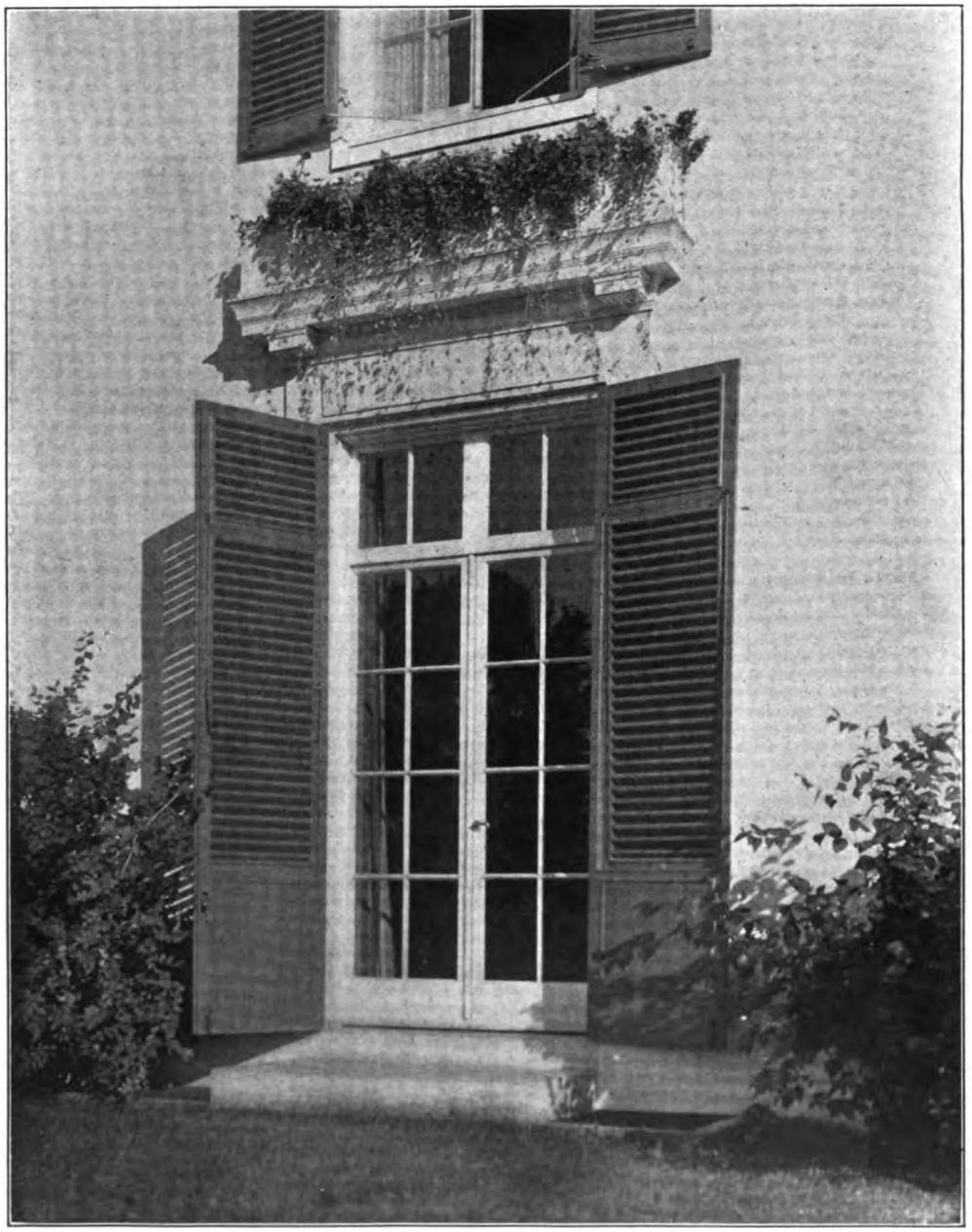
HOUSE OF MR. JOHN J. CHAPMAN—ENTRANCE ON THE EAST SIDE.
Barrytown, N. Y. Charles A. Platt, Architect.

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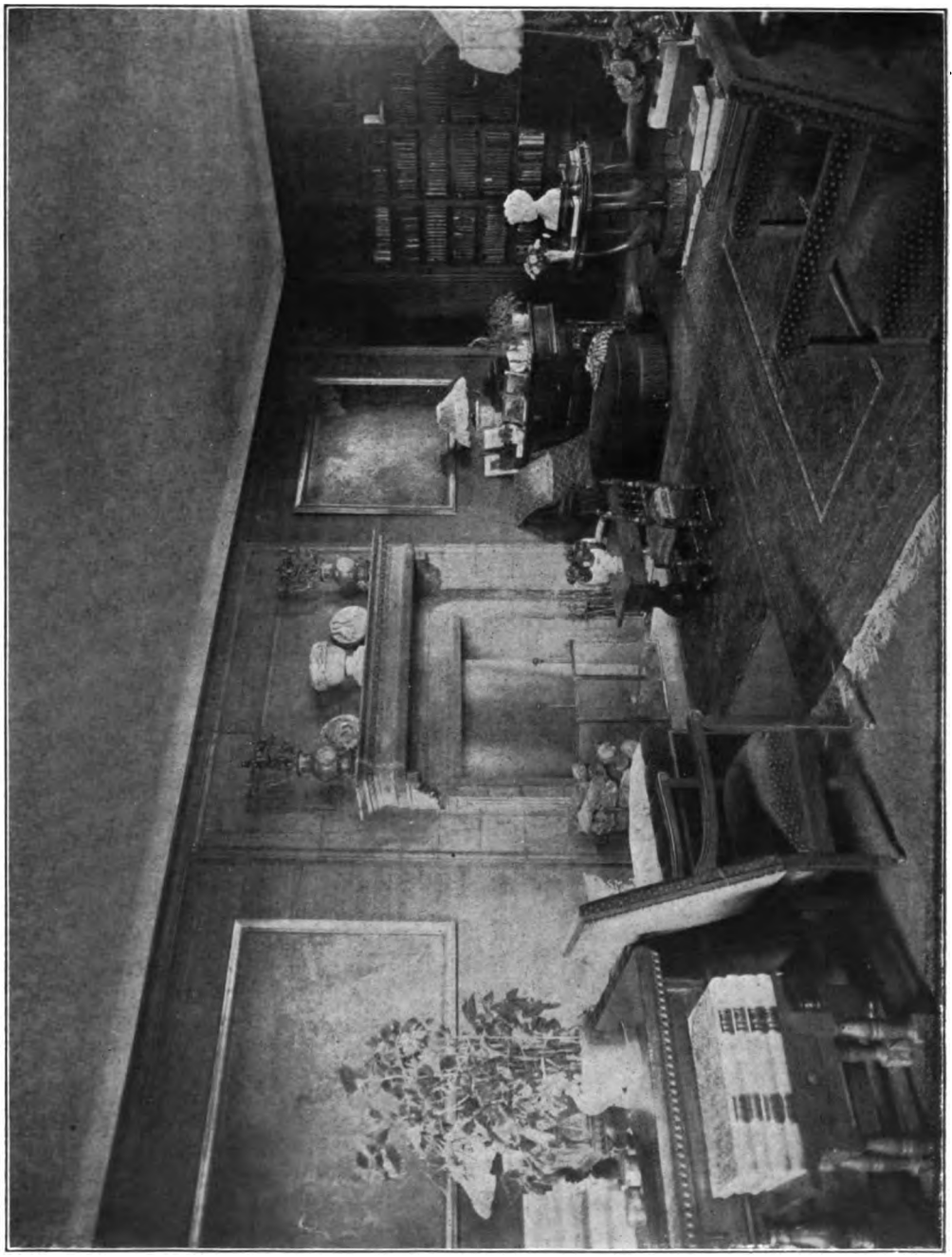
GARDEN OF MR. JOHN J. CHAPMAN—THE VIEW LOOKING WEST TOWARDS THE HUDSON RIVER.
Barrytown, N. Y. Charles A. Platt, Architect.

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HOUSE OF MR. JOHN J. CHAPMAN—DETAIL OF A WINDOW.
Barrytown, N. Y. Charles A. Platt, Architect.

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HOUSE OF MR. JOHN J. CHAPMAN—THE LIBRARY. Charles A. Platt, Architect.

Barrytown, N. Y.

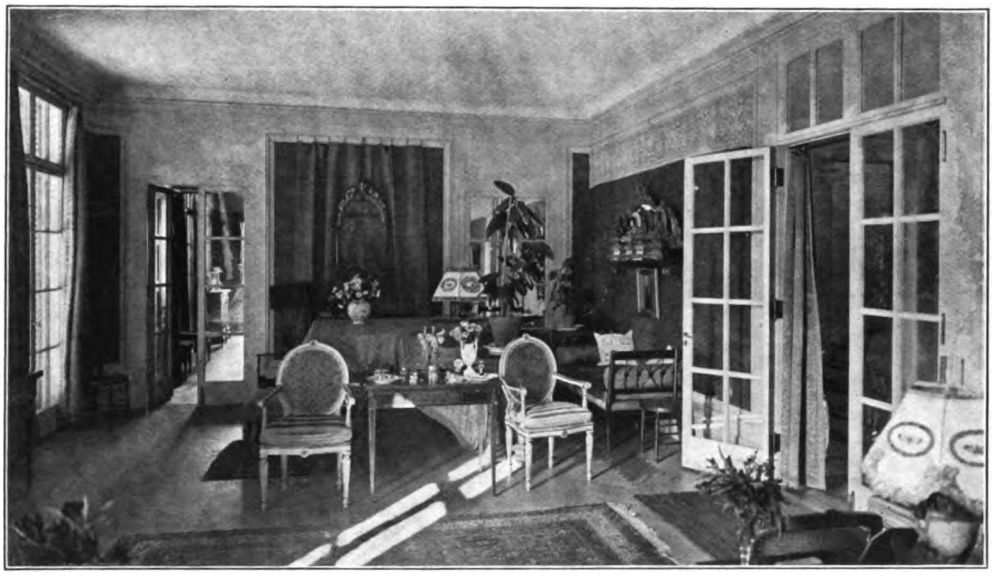
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HOUSE OF MR. JOHN J. CHAPMAN—THE MANTELPIECE IN THE MORNING ROOM.
Barrytown, N. Y. Charles A. Platt, Architect.

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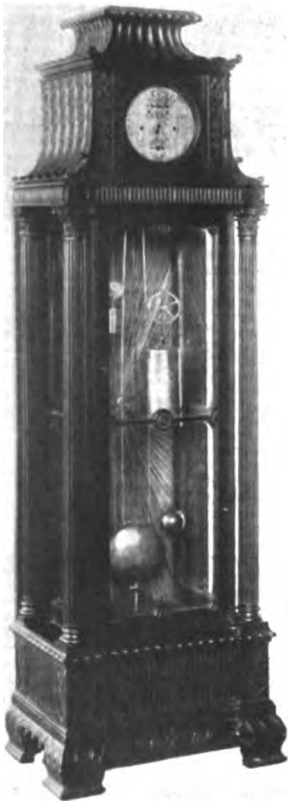
practical as well as an architectural purpose. And the plan works out equally well in other respects. The architect was able to place the most important living room—that is, the library—in the southern part of the building, thus giving it windows to the south, west and east. The dining-room received an equally natural and desirable location in the northwest and the kitchen in the northeast corner of the building. The house is approached, of course, from the east by a straight driveway, irregularly planted with fine old trees.



HOUSE OF MR. JOHN J. CHAPMAN—THE MORNING ROOM.
Barrytown, N. Y. Charles A. Platt, Architect.

The design of the house in its relation to the grounds is characterized by the simplicity, the economy and the distinction, which is more than ever becoming the note of Mr. Platt's work. His primary object always is to build the kind of a house, which will really appropriate its site; and a house, which really appropriates its site must possess a peculiar combination of fitness and self-possession. It must, that is, harmonize with its natural surroundings without being overwhelmed by them. It must retain its own strictly architectural propriety without becoming either impertinent or irrelevant in relation to the surrounding landscape. In the present instance the problem was to bestow a certain architectural dignity and presence on a building whose dimensions were, perhaps, a little small, considering the area of the site, the size of the surrounding trees, and the general scale of the landscape. He has been very successful in attaining this object. The Chapman house fits its site, commands its view, and holds its own in the landscape, and it does all of these things without any suggestion that it is trying to be a little bigger and more impressive than it really is. The result, moreover, has been obtained by the simplest of means. It is effective in design only or chiefly, because a building with a certain mass and a certain emphasis of its several parts has been put in the right place; and the noteworthy thing about it that the effect is as charming as it is architecturally appropriate. The charm is not in the least the result of adventitious detail either in the ornamentation of the house or the furniture of the garden, because such detail has been eschewed. It is simply the finer flavor of the essential architectural propriety of the whole design.

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MAHOGANY REMONTOIRE CHRONOMETER.[1]

[1]This unusual clock case is in Chippendale style. The upper portion is in the Chinese Pagoda form, the front embellished with acanthus leaf carving and pendant flowers. At the top of the fluted columns are carved Corinthian capitals.



MAHOGANY CORNER CUPBOARD IN CHIPPENDALE STYLE. (1760-1770).[2]

[2]This cupboard is made in two pieces. There is a scroll top, with carved rosettes, below which is a dentilled moulding. On the frame above the doors are carved frets and on the sides are pilasters with acanthus leaf carving at the top and frets in loop design on the surfaces.



DUTCH LONG CASE MARQUETERIE CLOCK. (About 1750).[3]

[3]This clock case is typical of those in favor in Holland in the eighteenth century. The case is embellished with marqueterie and on the top are carved figures.

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MAHOGANY LADDER-BACK SETTEE IN CHIPPENDALE STYLE.
(1760-1770.)

This settee is composed of three ladder-back chair-backs. The stiles joining the inside backs are pierced, giving the effect of a stile for each chair back, probably made in this way to give greater strength to the back. The supports of the arms are slightly carved in acanthus leaf designs. The legs are straight, carved in double ogee and bead mouldings. There are pierced brackets where the legs join the seat rail.

Some Furniture of Other Days

The chairs on which we sit, the table at which we dine, the desk on which we write are things intimate and so closely knit with our daily life that it would seem but natural we should spend a good deal of thought on their appearance, their beauty and grace.

As a matter of fact, it is not so. Even those who have the means and leisure to surround themselves with beautiful sculptures and paintings will often be found the owners of peculiarly ugly, tiresome furniture. Their esthetic sense is satisfied only with what they consider higher forms of art, objects for which the term fine arts was coined under Louis XIV., in distinction from industrial arts, and they regard furniture as of little importance. The pleasure they get from pictures, statuary and architecture satisfies them and so tends to dull their appreciation of objects which are really of greater importance, since the influence for good or bad on the taste of the family is more immediate and powerful in its effect when wrought by objects of daily use.

In his hours of relaxation the collector enjoys his pictures. Then the charm of color and composition, the appeal of great technical mastery, the deeper thought of the artist enter into the collector's soul. But the pleasing, comforting message of the beautiful object that is of use is always being uttered. Such things ought to be selected with just as great care; for they appeal to every one, those who are unconscious of the appeal as well as those who know. They fill their office of silent educators in taste among minds to whom the charm of painted canvases and statuary is still a sealed book. They are, in truth, of the highest value in forming the habit of demanding beauty in all of our surroundings.

There have been times like the later Middle Ages and the Renaissance when

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WALNUT ARM CHAIR IN DUTCH STYLE.
(First quarter eighteenth century.)[1]



WALNUT ROUNDABOUT CHAIR IN DUTCH STYLE.
(Second quarter eighteenth century.)[2]



BEECH CANE CHAIR.
(Last quarter seventeenth century.)[3]

[1]The lines of the top are broken with well executed pierced carving of an early date. The supports for the arms and the knees are carved in acanthus claw and ball feet. The center of the skirt is carved in the same shell design as appears on the top rail, but not pierced. The chair is strengthened with an X bracing. The style of the carving and the proportions of the chair suggest a Spanish origin.

[2]The carving is very bold and well executed in acanthus leaf design in the center of the top rail and on the legs and two splats. The arms, which are part of the top rail, terminate in lions' heads. The four "cabriole" legs are well carved in acanthus leaf design and the feet are splendid specimens of the animal's claw and ball, the hair being boldly worked out. An underbracing joins the four legs.

[3]A bird's head is carved at either end of the top rail and at the center are two of the same kind of birds with beaks together. The legs are turned and end in Spanish feet. The X underbracing represents an early change toward a lighter form of construction. This is also found on the tables of the period of William and Mary, to which this chair belongs.

the Western peoples appear to have awakened to the value of beautiful furniture, and artists were encouraged to spend their best talents on things of immediate use. The impulse given by such art awakenings continued for centuries; but gradually, with the desire to obtain novel forms, beauty degenerated into the fantastic and eras of bad taste set in, the fashion being set by people of inferior taste. For example, the short era of the French Empire style, roused into existence by remains of early Egyptian furniture suddenly revealed to the world, produced very beautiful things in the hands of artists to whom the best products of the reigns of Louis XIV. and XV. were thoroughly known. But the second crop of the Empire style was so noisy that people turn from it with disgust. In Germany and England certain fatuous workmen seized on these Egyptian motifs and made the whole school ridiculous. Especially in this connection I remember one George Smith, of London, "*Upholder Extraordinary* to his Royal Highness the Prince of Wales," who published a work with colored illustrations setting forth what he had produced or, if encouraged, would produce in the way of bedsteads, sofas, dining tables, fauteuils, X-chairs, "tea-poys," quartetto tables, escritoires, commodes and "chiffioners," which for ugliness in proportions and outlines and for hideousness in the draperies and stuffs must be seen in order to be believed. His is an extreme case, but it is merely a sample of a hundred others in which the tasteless designer has mer-

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cifully spared the world a publication of the nightmares he considered art. I suppose the poor man considered himself an "upholder" of the Empire style, then in the fashion.

To understand the wide range of study in furniture it is useful, of course, to pass some days in the Musée des Arts Décoratifs, at Cluny and the Louvre, and in the Victoria and Albert at South Kensington, London. The smaller collection at the Metropolitan, New York, should not be overlooked. But more can be learned in a narrow field of such a gathering as the Tiffany Studios provides, because there are many examples of the same style and period which differ one from another in comparatively slight particulars. It is weak in Colonial American and French furniture, but strong in English and Dutch. The Elizabethan, or "Gothic," as the writers on furniture used to call everything made prior to 1600, the styles introduced by the brothers Adam, chairs and tables by Chippendale and Sheraton, Shearer and Hepplewhite and their followers may be seen in this collection in great profusion. It is not a gathering of examples to instruct the cabinetmaker and the amateur; it is a mass of furniture well selected, but for sale. Hence the presence of many pieces nearly alike, instead of single typical pieces, as we find it in museums where space is an object.

This collection is founded on that of Mr. Thomas B. Clarke, one of the directors of the Tiffany Studios, who made it long before he thought of con-



MAHOGANY SIDE CHAIR IN CHIPPENDALE STYLE. (1760-1770.)[1]



MAHOGANY CHAIR IN CHIPPENDALE STYLE. (About 1755.)[2]



WINDSOR SIDE CHAIR. (Last half eighteenth century.)[3]

[1]This is a very beautiful example of a Chippendale Gothic which was so popular during the later years of the Chippendale influence. Every detail is beautifully executed. The splat is well cut out in Gothic designs, suggestive of church windows. There is a slight carving at the ends of the top rail, and the surfaces of the stiles and legs are cut away in frets of Gothic design.

[2]This chair represents the pure type of the Chippendale ribbon-back chair fully worked out in every detail and the perfection of that design. The top rail is composed of rococo scrolls, beautifully carved. At the upper section of the splat are carved bow knots of ribbons, the streamers intertwining extend down the whole length of the splat. Below the bow knot is carved a cord and tassel. The splat extends on either side to the stiles of the back and no straight surfaces are left, all edges being carefully carved out in acanthus scrolls. The legs are "cabriole," terminating in French scroll feet, and characteristic Chippendale cartouches and leaves are carved on the knees. The front rail of the chair is also carved in rococo designs.

[3]In this side chair the center of the splat is cut in a star within a sun-ring.

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necting himself with the firm, of which Mr. Louis C. Tiffany is the guiding spirit. Last year it was placed on exhibition for the first time. For this Mr. Luke Vincent Lockwood, amateur and collector, has made a catalogue, a folio of 480 pages, with many illustrations.

One can follow here the influence of Flemish and Dutch cabinetmakers and carvers on British furniture under the reigns of James I., Charles I. and II. and of William and Mary. Later comes the Classic revival and the influence of the fashions under Louis XV. and XVI.; nor are examples lacking which show the impression made by Chinese furniture in the eighteenth century. Some of the adaptations of Chinese to European ideas are by no means ungraceful, though it must be confessed that they suggest a hybrid, always.

Chairs are here in great number, and their study is well worth while. It is remarkable how the examination of a gathering of this sort educates the eye for the proportions of chairback to seat, of legs to arms, of front rail to back rail. The study of the upright "splat" becomes a hobby. The composition of the foot as an indication of age; the shape of the back, its upright or transverse rails, as indications of the handiwork of special cabinetmakers of renown; the presence or absence of braces for the legs; all these are matters which, little by little, assume prominence as one



MAHOGANY ARM CHAIR IN SHERATON STYLE. (1790-1800.)[1]



MAHOGANY ARM CHAIR IN HEPPLEWHITE DESIGN. (1785-1795.)[2]



MAHOGANY SIDE CHAIR IN TRANSITION STYLE. (1780-1790).[3]

[1]The back of this chair is in the general rectangular Sheraton shape. At the corners of the top rail are carved rosettes and at the center, pendant flowers. The back is composed of lattice work and, on the stiles, where the lower rail of the back joins the stiles and where the legs join the seat rail, are carved rosettes. The arms are in a graceful design and are supported by carved twisted columns. The legs are round, the front ones being reeded. An X underbracing strengthens the chair.

[2]This very large Hepplewhite chair was probably intended to be used as a writing chair, holes in the arms indicating that there was an extension to spring out in front. The splat is carved in a well executed urn with acanthus leaves at the top and draperies extending from the center of the splat to the stiles. The legs are straight and terminate in spade feet and there is a curved underbracing.

[3]This chair is in many respects similar to those found in the Sheraton school, but it bears a resemblance to the transition piece heretofore shown. The splat is composed of two pierced wheels, beautifully carved. On each side of the large wheel are carved pendant flowers and similar designs are carved at the center of the top rail. There is a slight acanthus leaf carving at either end of the top rail. The legs are round and fluted, and the rail of the chair seat is also fluted, and there are rosettes carved above each leg and at the center.

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WALNUT VENEERED ARM CHAIR IN DUTCH STYLE. (About 1725.)[1]

MAHOGANY ARM CHAIR IN LATE SHERATON STYLE. (About 1800.)[2]

MAHOGANY SIDE CHAIR IN CHIPPENDALE STYLE. (1750-1760.)[3]

[1]On the top rail are carved five medallions, each containing a spray of flowers. The splat is beautifully carved in relief with flowers and leaves, and edged with acanthus leaf scrolls. The arms and their supports are also carved in the same leaf design. The lower edge of the seat rail is cut in a rope pattern. Below the point, where the arms join the side rails, are carved rosettes with acanthus leaf designs. The legs are "cabriole," terminating in the animal's claw and ball feet, this being a design found often in chairs of this period although not so familiar as the bird's claw and ball feet. The knees are carved in acanthus leaf designs.

[2]Beautiful example of a late Sheraton chair in the Empire style, for which Sheraton was especially famous. It will be seen, by a comparison with other chairs what a radical change he had made in his style between his earlier and later pieces. The supports for the arms are beautifully carved swans raised on cornucopias. The blocks supporting the arms are carved in a classic honeysuckle pattern, the front seat rail in the same design. The legs are "cabriole" in the Egyptian fashion, ending in griffin feet and the knees are carved in honeysuckle. The splat represents Roman armor, banners and fasces.

[3]This very handsome chair is made in the same general design as that under discussion so far as the outline. The central splat is finished in a Gothic effect. The top rail is well carved in an acanthus leaf design and the edges of the splat are well worked out. At the center are pendant flowers. The legs are "cabriole," with well carved animal's claw and ball feet, and the knees are particularly well carved in acanthus scrolls, extending across the lower edge of the seat rail in a manner very characteristic of Chippendale.

learns more of the styles and fashions in chairs.

In truth, the chair appears to be one of the first pieces of furniture to engage the artistic sense in primitive times, for at such early epochs it was a symbol of superiority, more throne than chair. Unfortunately, the materials of which it was usually made have prevented the survival of wooden and leather and cane chairs, except in a few Egyptian cases; but we do get many ancient stone and marble seats, benches and armchairs, not only in Europe and Asia, but in America. Thus, elaborately but coarsely carved stone seats, with human and animal heads, have been found recently in Ecuador, and the museum in Mexico City contains prehistoric carved stone chairs.

In Ireland before the crusades we find a civilization of Western Europe surviving from the turmoil of the great racial wars from the fifth to the tenth centuries; and in many respects this civilization is curiously similar to that of central Asia. There is the round wicker-work house, surrounded by smaller structures, which recalls the circular hut and tent of Mongolian hordes But the various parts of a modern farmhouse, its parlor, dining-room, kitchen, upper rooms, garret, etc., are five separate buildings or more, each having its thatched roof and wattled walls sealed with clay and whitewashed.

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COLONIAL AMERICAN HIGHBOY.

Unusually good quality bonnet-top highboy, in curly maple. The cabinet construction of this piece is equal to that of any made in mahogany, the mouldings being exceptionally fine. The hood top is of good proportions; the mouldings terminate at center with sun flowers. The top blind drawer is a very unusual feature. The front of this drawer is carved with a sunken shell from each side of which carved applied scrolls extend. The corners are chamfered and fluted, adding greatly to the appearance. Four bold ball and claw feet support the whole; the hips of legs are carved in shells. Manufactured in this country about 1760. Three terminal torches are new.

According to the early romances and "historical" writings in Irish, the favorite shape for large assembly halls was circular, a fire being kindled in the center, and couches, permanent parts of the building, being ranged round in order of excellence. These couches, like similar seats in the Orient, were large or small chairs to hold from one to three persons. They had their fronts, legs and uprights carved, painted and often overlaid with bronze, silver or gold foil. Sometimes they had canopies over them, perhaps not merely for pomp, as a sign



ENGLISH WRITING CABINET, EIGHTEENTH CENTURY.

A writing cabinet of exceedingly dark and rich grained mahogany, following the classic lines much in vogue at the beginning of the eighteenth century. The broken arch pediment is of a bold scroll terminating with gilt rosettes; a delicate fret centered with an eagle spans the opening formed by arch. The cornice and frieze are in perfect proportion; the doors, comprised of raised panels, are framed in two fluted and reeded pilasters, which are topped with gilt capitals; the compartment shows exceptionally good cabinet work and is divided above with adjustable shelves and below with drawers and pigeon holes, between the pigeon holes are upright semi-secret drawers having reeded fronts. The lower portion is of bureau form, the drop leaf resting on two drawers emphasizes the early date of the piece. The interior of this section is divided into pigeon holes and drawers centered with a compartment having a shell carved on the door and four secret upright drawers. The workmanship and shaping of drawers is very unusual. The bracket feet are of good form, relieved with a flat moulding. The handles are new, but copies of the original. Manufactured in England about 1740.

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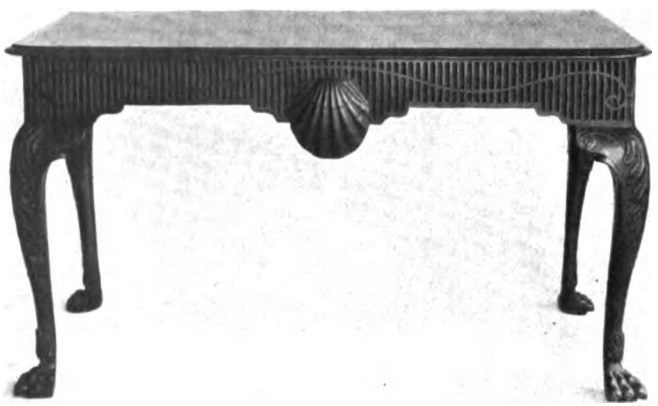
[1]The ornamentation of this table is very characteristic of the period. The upper edge is carved in a rope moulding design and the "skirt" is elaborately cut away with two garlands of oak leaves and corns with a flower. At the center of each is carved a bird extending up on the solid framework of the table. At the center is a carved shell. The legs are "cabriole" terminating in bird's claw and ball feet, and the knees are carved in the acanthus leaf design.

[2]This table has all the indications of an early date. The rail is carved in flutings with a fine line of scroll work running through the surface. At the center is carved a large shell. The legs are "cabriole," terminating in claw feet, just above the feet is carved an acanthus leaf which is characteristic of an early date. The knees are carved in acanthus leaf designs.

[3]This side table is in circular form with the back portion serpentine. At the center of the back portion is carved an urn with grapes and grape leaves and a medallion is carved at either end. At the center of the skirt is carved an urn with garlands of flowers tied with bow knots, and medallions are carved above the legs. The legs are in "Marlborough" form with fluting on the front surface. About the top is a moulding carved in a leaf design.



MAHOGANY TABLE IN DUTCH STYLE.
(1720-1730.)[1]



MAHOGANY TABLE IN DUTCH STYLE.
(About 1725.)[2]



MAHOGANY SIDE TABLE.
(1780-1790.)[3]

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of a chief or princess, but practically, in order to intercept any leakage of the thatch. A house built of pine boards might have cornices, lintels and doorposts of carved yew, a favorite wood also for bedposts, buckets, churns, pitchers, dishes for meat and foodstuffs generally. Also for tablets on which men wrote. Allusions to yew as a wood for such things are found in descriptions of royal and princely houses at Emania, Cruachan and other ancient centers of legend in Ireland.

A poem in Gaelic in honor of Credé, a coquettish heiress who lived near the Paps of Anànn in Kerry describes her house and household; it speaks of her chair as well as her couch, and also of beds with four posts sheathed in precious metals. Her suitor sings:

Two doorposts of green I see,
Nor is its door devoid of beauty;
Of carved silver, long has it been renowned,
Is the lintel that is over the door.

Credé's chair is on your right hand,
The pleasantest of the pleasant it is;
Over all a blaze of Alpine gold
At the foot of her beautiful couch.

A gorgeous couch in full array
Stands directly above the chair;
It was made by Tuilé in the East,
Of yellow gold and precious stones.

Four posts to every bed,
Of gold and silver finely carved;
A crystal gem between each post;
They are not of unpleasant heads.

In carrying our thoughts back to the Middle Ages, we must fix in our minds the extreme simplicity of the surroundings of the highest placed. Palaces on the Continent and in Great Britain did not have furniture unless the train of king or grandee came and brought with it tables and benches, beds and bedding, coffers and kitchen utensils. The bare walls were hung with tapestries drawn from the iron-bound trunks furnished with iron rings to tie them securely to horse or rude cart. When the court left, the castle or palace was quickly dismantled. Later on, when the king had used the commons to down the great feudal nobles and gathered to himself the income of the whole country, palaces and castles could be stocked with permanent furniture. We have some inkling how it stood with small landowners.

From old books of rank and caste preserved in Irish it is possible to gain some idea of the furniture of the houses of provincial kings, chiefs, rich farmers and artisans; for rank and title were supposed to require certain lands, cattle, houses and furniture which are enumerated. Moreover, specific fines in cattle, etc., are mentioned to be levied for the mutilation or complete destruction of these objects within the house proper. From these it appears that doors and couch fronts were carved, even on small farms, while the higher ranks had couches carved on all sides and ornamented with figures of birds in metals. In addition to these couch bedsteads, which in Oriental fashion must have been used as seats by day and beds by night, there were stools and benches for servants and retainers. The beginning of the feudal epoch, with its rise of the romance of chivalry, is perhaps shown in the *grianan* or sun parlor over the door, which provided a room for a little privacy where the lady of the house could hold herself aloof from the daily life of family and servants. It certainly marks the spread into Ireland of the use of glass for windows in place of skins; for the *grianan* of Bricziu of the Poison Tongue has glass windows that look into the great house and also outward. It is a wing, balcony or addition to the house raised above the ground, whence one can see into the main building and out on the landscape like a glassed-in upper porch.

Ireland seems to have had some fame on the Continent for its wood used in furniture. In the records of outlays for coffers, bahuts and other pieces of cabinet work during the fourteenth and fifteenth centuries, ordered by the kings and royal princes of France, there is much mention of a *bois d'Irlande;* but whether this was what we call English

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oak or boxwood or yew does not appear, for all these objects, so carefully noted in the old account books, have disappeared. That change of fashion which made Frenchmen disdain for centuries the greatest architecture the world has produced and cast upon it the stigma of Gothic caused them also to be ashamed of the old furniture of their churches, palaces and castles. It was cast out and soon succumbed to vandalism and neglect.

If we regard the development of household furniture historically we may perceive a to-and-fro movement between color and form. After color has had its day, form is sought for; when form runs into the eccentric and bizarre there is a return to color. Early European furniture of an artistic sort is largely represented by coffers and marriage chests to contain the few but costly garments, boxes which were so built that they could be carried by sumpter horses or mules and placed in the houses, which were generally made of wood. In case of fire these coffers might be speedily removed. They were of oak, heavy in outline. They obtained preciousness through painting, gilding and some modest carving. Armchairs and folding stools were much less decorated. From the early Irish literature just mentioned, that which runs from the tenth to fourteenth centuries, we get some idea of the household objects common to the rest of Europe before the Crusades. Among them are mounted cows' horns and beakers carved out of yew, boxwood and holly for drinking ale, mead and milk, ornamented bags of leather, bronze caldrons built of riveted sheets of metal, and boxes of silver for holding precious objects of personal decoration or Christian missals—to which last the most extraordinary superstitions attached—and state couches encrusted with bronze fronts where they were exposed to the heat of the central fire in the chimneyless round houses.

Household furniture naturally occupied a very small part of the attention of the two kinds of literary men whose verses and prose tales have survived, namely, the bards or filés who chanted deeds of war or recited magical or satirical incantations, and the monks who have left legends of saints deeply tinged with the old pagan myths. Neither cleric nor layman cared for family life, being occupied almost exclusively with military affairs or the deeds of a parcel of saints to whom their biographers attribute deeds of uncommon ruthlessness and ferocity. Evidently, in the ages between Roman rule and the crusades, there was little room in Europe for the development of comforts and the household arts.

Nevertheless, from descriptions in the old prose tales and ballads we perceive that while modern comforts were lacking certain objects of importance, such as weapons, hair ornaments and other personal jewelry for men, drinking goblets and couches or thrones were carried to a very high degree of splendor, and we meet the objection that those descriptions were vain imaginations of the poets by pointing to the parallel in Oriental life and to remains of these old splendors preserved in museums. The gold room in the Dublin Museum and the galleries for bronze objects in that of Copenhagen, containing finds in two of the outlying parts of Europe less subject than other portions to devastation by war, will give an idea of the general state of artistic culture before the crusades, even if the objects that we usually include in the word "furniture" be few and mostly of the portable sort.

In countries where wardrobes and bureaus and commodes and what-nots were represented by holes in the wall, where the bedstead was often an alcove and where only rich men had arrangements to permit the smoke to escape from the dwelling, there could be small demand on the services of master carpenters, master smiths and the early artisans of merit to carry out works of craft for lay households. But the clergy, having cleverly emancipated itself from the obligations of military service, of paying taxes, of raising families and other things which retard the ordinary man and use up his strength and means, acquired great wealth and soon outshone

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princes in comforts and luxuries. As we see it in the church at the opening of the Gothic period, which coincides with that of the crusades, a period of abnormal activity of brain and of increase in taste, the great bulk of the art shown in objects of use belongs to the sacred edifice or the dwellings of churchmen. It was only after most of the available wealth of the country had been fixed in cathedral and chapel, monastery and nunnery, and the best farms had been set aside to support the sterile portion of the community, that members of the laity had a chance to develop the arts and crafts for their own household. After a while the inevitable reaction set in and burgesses without so much as a title were even more sumptuously housed than minor nobles or prelates of a haughty vein. This was particularly common in parts of Europe favored by commerce like Venice, Belgium and the Baltic islands.

If we see the early painters on canvas in Western Europe coming up from painters of images of wood and stone, learning the use of the brush from the treatment in color of carving, as we see in the *rétables* and figurines for early altarpieces, we can scarcely be surprised at a liberal use of colors for domestic furniture. Some of the oldest pieces retain more or less of color and gilding. At the same time we see that furniture became more and more notable for form, and under the influence especially of Gothic architecture tended always to become more architectural in design. Painting of furniture waned under this larger view of a harmony between the objects within and the building for which they were intended. This architectural view of furniture continued under the Renaissance; then color reasserted itself in the shape of inlays of ivory and ebony, and decorative bronzes applied to the wood.

Roughly speaking, we may consider the Byzantine art, as expressed by its mosaics, the art of an epoch devoted to color, while the Romanesque shows a leaning to form, as does also earlier Gothic architecture. Soon, however, we see in the later Gothic a sacrifice of pure form for color, as, for example, little Saint Maclou in Rouen. When we come to the centuries famous for varied and artistic domestic furniture, viz., the sixteenth, seventeenth and eighteenth—centuries during which neither Church nor court had a monopoly, but while the court generally led the fashions the people in general rose more and more to wealth and assumed the luxuries of the privileged classes—domestic life becomes so complex that we feel that modern times have arrived. It is hard to realize what life must have been in winter, for example, when, with few exceptions, people had to exist higgledy-piggledy in cabins of one room in the country, or in small castles and town houses amid surroundings of the most primitive, unhygienic kind. Compared with such conditions the monastery and nunnery may well have presented to lazy men and women, more or less concerned with their own souls, a rather comfortable abode, and it was not without reason that a convent should demand from those who entered its ranks either a sum down or the certainty of services of some value to the religious community. Princes of France and Belgium not only encouraged painters and sculptors, but furniture makers, potters, weavers of tapestry and cloth, ivory carvers and goldsmiths, as well as the makers of armor and weapons. Prelates and rich abbots followed suit, so that there was rivalry between lay and clerical nobility as to which should exhibit the greater sumptuousness and taste. Though the common people suffered, art bloomed—now up, now down, now rising to exquisite forms and then flattening out into absurdities which still amuse and interest us in their surviving fragments.

We see the changes of fashion especially in chairs, a form of luxury in the Orient reserved to chiefs and grandees, as it was in the West until the crusades. There is the greatest difference between the chairs of the fifteenth and sixteenth centuries. Under the French Lewises for nearly two centuries fashions ever changed, until the Revolution broke with all the old traditions and cleared the ground for a violent reversion to

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extreme antiquity under Napoleon. This had a very brief existence in France, but did not fail to spread to other countries, not excluding America and Asia, so that those purists who despise the Empire style and seek to minimize its influence do so in the face of patent facts. To the present day large quantities of furniture in the Empire style are called for in all parts of the world. Indeed, there are collectors who make a specialty of this revival of one of the domestic styles that existed before the dawn of history.

Whatever we may think of modern European imitations of antique Egyptian furniture, it must be acknowledged that the Egyptians carried comforts to the point of luxury. They seem to have given Asia and Europe the fashion of war chariots at an early epoch. Recent discoveries in Crete make it probable that the very modern arrangements of a king's palace found at Knossos and Phaistos—drains, bathrooms, many superimposed stories, gala stairways, open-air theatre for bull-baiting and circus performances—warrant us in the belief that this early island civilization, far earlier than the dates possible to Greek culture, was due to Egyptian example. And the discovery in Egypt of wall paintings and pieces of miniature or toy furniture of baked clay, not to speak of the actual pieces fortunately saved from destruction in the dry soil of ancient tombs, reveals the fact that from very early epochs the Egyptians used beds, armchairs and stools of a great many forms, chests or cabinets for keeping valuables and a variety of tables. Their houses were often two or three stories high, had elaborate doors and latticed windows, and must have had adjacent flower and fruit gardens, such as we find at a much later epoch in Syria, Persia and the southern edge of Europe. The glimpses we get of domestic life in Egypt and Crete, several thousand years before Christ, astonish us by their modern touches in dress, amusements and furniture. So that it is not so very surprising that styles of furniture of this remote epoch should meet perfectly modern requirements. Only one feels that as it is with the architecture of Egypt, so with the furniture: neither belongs to our climate or really suits us. London, Munich and, till lately, New York have seen these attempts to copy buildings of the ancient Egyptians. They are grotesque.

But very naturally we are more concerned with furniture that can be placed in our own houses. If we have one good piece of the Dutch period, say a Dutch kas with flaring top, or a fine Chippendale chair, or a delicate table in mahogany by Sheraton, or a sumptuous cabinet by Boule, we can use this piece as the center round which to furnish a room, not necessarily in strict accord with the period, but in such a way that harmony results, even if the other pieces are not exactly by the same maker. The Metropolitan has some tables and chairs from this Clarke Collection which are worth examining, as may be seen from the illustrations. One should remember, however, that while in these cases form is the prime quality, color is also important. The color and grain of the wood, which the illustration does not reproduce, are only second to the shape in the pleasure one gets from them.

Furniture of this seventeenth and eighteenth century in England and America has its own stamp upon it. Collectors on the continent of Europe are eager to get examples, and in Germany one finds that English furniture of this period has been imitated in modern times with adaptations to more modern needs. British workmen have devised new ideas for sideboards, and the common sense of Colonial America has invented the rocking chair and other Yankee notions. But when one studies the much-prized British furniture one finds it following two main sources of inspiration—the Netherlands and France. After the Elizabethan, which is marked by a style that is Flemish, comes a Carolean epoch, followed closely by that of William of Orange, which are Dutch, so that most of the furniture in the seventeenth century produced for the nobility and rich traders had work by Holland masters for its antecedents. Indeed, just as Dutch, Flemish and, occasionally, Rhenish masters of painting

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supplied the British demand for portraits and pictures, so the same section of Europe supplied cabinetmakers, engravers of mortuary brasses, goldsmiths, etc. With the increasing power and political weight of the French Lewises, however, fashion leaned during the next century toward French furniture. The greatest names in British cabinetmaking are those who, copying the more graceful and sumptuous ideas of the Louis XV. period, adapted them to the cooler taste of the British. Take Hepplewhite, for example, who refined the forms until they appear almost alarmingly weak, his tables having very thin straight unbraced legs that look too fragile for "common nature's daily food." His chairs appear proper only to ladies who physically are of the lightest. The backs of his chairs, delightfully sketched in heart or shield shape by the use of delicate woods, are scarcely capable of sustaining Dr. Johnson or any other person who might be fit to "laugh and roll in Rabelais' easy chair." Neatly clad, modish dames and male lightweights are the only persons who can use Hepplewhite chairs with safety. The Adam brothers, architects who studied in Italy, brought into furniture a refined taste. One of the illustrations is after a sideboard of their period, which shows the impress of their example on interior decoration. The comfortable and practical wooden chair of the simple design called the Windsor reverts occasionally in the outline of its central splat to wheel forms which are prehistoric, for we find them in the heads of pins of the bronze age. The grandfather's clock is also a product of the eighteenth century, though we often are disposed to give it much greater antiquity than it can boast. Corner cupboards and knee-hole bookcases of mahogany are rarely more than a hundred years old. In a New York collection there is an oak table with a clever arrangement for lengthening at both ends by means of concealed extensions which bears evidence of real antiquity, not only in the wear shown by the foot rails that unite its massive legs, but by the marks of knives on its top. Such furniture belongs to the days of Shakespeare and good Queen Bess.

Charles de Kay.



OAK STANDING BUFFET OF ABOUT 1625.

Standing-buffets differed from the court cupboards in that the latter were seldom under 5 feet in height and the lower portion was nearly always enclosed by two doors. The top portion of this piece is supported by two figures of women treated as caryatides; this feature is repeated in the lower portion. The cupboard is of triangular form, having three panels, the center one opening as a door.

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General Contracts Versus Individual Contracts

The very thoughful article by Mr. Geo. C. Nimmons in the January number of the Architectural Record is but one of many indications pointing to a very general disposition to question the economy and efficiency of current methods of management and of letting contracts in the building trades.

So far, however, I think no practical suggestion has been made of anything better, at least in the way of general methods. As to a complete abolishment of competitive tenders, I think discussion is altogether an idle one. As long as men are willing to estimate and offer proposals in competition, this competitive feature will surely exist. And what is more, if properly managed and safeguarded, that feature would seem both satisfactory and unavoidable. The competitive system certainly has been productive of a great many reforms and economies in the building trades by putting a premium on efficient management and improved methods in manufacturing and handling labor and materials, and, as a general proposition, work by the day is not as cheap as work by contract.

On the other hand, with better methods of management, giving more attention to details, certain improvements might be made in the manner of inviting tenders, very materially reducing the waste of labor now imposed on contractors.

THE GENERAL SITUATION.

As building construction was formerly carried on, each set of mechanics took hold when the building seemed ready for their particular work, under the management of the architect, and speed of construction was not required, as a rule. But, nowadays, a building is expected to be finished in a certain space of time, at a cost not to exceed a certain limit, and the building must be equipped for its uses with a great many conveniences and appliances formerly unknown and unheard of. The popular idea to the contrary notwithstanding the general standard of work is now much higher than formerly, requiring a much closer supervision and expert guidance, and constructions and appliances have become complicated to such an extent as to make an old-time building plan compare to a modern one much as the drawing of an old-fashioned horse-power threshing machine would to a modern newspaper printing press.

THE PROBLEM.

A building is in course of construction, a number of mechanics of different trades are at work shaping and setting materials which have been prepared, more or less, in different shops, often hundreds of miles away, all sets of mechanics and all shops being provided with scale drawings, full size details and specifications, all being subject to shop and field superintendence and acceptance or rejection as to materials and workmanship by the architect or whoever may have been vested with that authority. When we stop to consider the fact that the number of individual contractors and purveyors of materials of a building of no uncommon size, usually run into the scores, then some idea may be gathered as to the magnitude of the task.

Add to this the fact that New York possesses the world's greatest market for building materials, every race and every clime seeking in it an outlet for its products, and we realize at once the importance of expert selection and skillful purchasing of materials of every kind.

NEED OF ORGANIZED MANAGEMENT.

In order to solve the problem described there is need of complete and efficient organized management. On the other hand, the building trades of New York possess facilities of such excellence and magnitude as to render the

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task of organized management of building construction much simpler and easier than would appear possible at first sight.

The individual organizations existing for doing any kind of work, from excavating, caisson and foundation work the finest of decorative work are so numerous and the army of men engaged in the building trades is so enormous as to far out strip anything of its kind ever dreamed of anywhere, and it is led by engineers, experts and men of business who stand as high in their professions and in the community as those of any other branch of business.

This points to a system of individual contracts, upon competition or without, as feasible and economical, dividing the work so as to entirely avoid subletting, and as, in the building trades, the recognized terms are cash each month, leaving only the expected profit for the last payment, and as, in any event, the individual contractors must find the money for carrying on the work, no financial organization is needed to speak of.

The management needed, therefore, consists of the following units:

1. A draughting office for laying out, setting and anchoring plans, working and shop outlays, for doing measuring and checking, taking off quantities and doing quantity surveying generally, listing orders for the material yards, mills, shops, etc., estimating and generally all technical work in connection with the execution of work, including also general superintendence and checking the work of the foremen or superintendents in the shops and on the works and furnishing data for certification of payments.

2. A general business office for booking all contracts and orders, inviting tenders, certifying payments, attending to correspondence, payrolls, time sheets, etc.

THE NATURAL ARRANGEMENT.

The natural historic and logical arrangement would seem, at least for buildings of average size, to suggest leaving the entire management with the architect, making him solely responsible to the owner for results.

This would be easy of accomplishment by so extending the staffs of architects' offices as to include the necessary office forces for managing the individual contracts. As a matter of economy individual firms organized permanently for any special kind of work and possessing the experience and facilities accumulated from year to year certainly must be assumed to work more cheaply and better than gangs of men picked up for the occasion.

I believe this is also the safest method because the owner is dealing direct with the individual contractor in each case. I believe it is the quickest and most direct because it is a single-headed management.

I believe it is the only one by which the owner can be sure, in all cases, to obtain the terms of a cash purchase for his cash.

I further believe it is, in the last analysis, the only system in line with general experience and policy for this reason, that the management of contracts on behalf of an owner is a fiduciary act of a professional nature. For that reason the protection of professional standards, professional penalties, professional conscience and honor should be thrown around it.

This is not a question of honesty or whether architects are more or less honorable in their dealings than contractors. It is purely a question of method and of contract. A contractor as a man of business may accept and even demand discounts and "rake-offs" which an architect cannot retain.

In the case of a lump sum contract the contractor may, if he chooses, sublet to an inferior set of sub-contractors and pocket the difference. It is his legal right to do so.

In the case of an arrangement of cost and a profit he may add the trade discounts and rake offs to that profit without the owner's knowledge and without loss of standing. Now, a contract in which one contracting party is thus at the other party's mercy is surely not a fair contract.

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COST OF MANAGEMENT.

As a rough figure, it may be said that the usual ten per cent. now paid to general contractors, probably represents a fair average on work of average size, but it varies very largely. Probably most of our work, so far, has suffered from lack of organized management, lack of complete shop details and ample shop and field superintendence.

It will pay in buildings of any considerable size to have a complete management and I believe it would stop much waste now unavoidable, an item which alone might pay for the management, and in cases certainly would.

The practice of subletting is due to lack of management at the fountain head, and certainly has proven both expensive and troublesome.

At an arbitration proceeding for cabinet work in an uptown hotel, some parts of it were found to have been sublet six deep and to carry a profit of 60 to 70 per cent., and subletting, three, four and five deep is of the most common occurrence and means, of course, accumulated profits.

I said subletting was due to lack of management at the fountain head because this makes it necessary to reduce the number of subcontractors to be managed, which again practically divides the work into a certain number of minor general contracts. It must be evident, at a glance, that in this respect also very real and important benefits can be derived from a management equipped for dealing directly with every individual manufacturer or contractor doing work with his own men in any special line. There is, of course, a limit to this, as every manufacturer must purchase some parts of his work from other manufacturers. However, there certainly would be a decided saving in cost on this head also, and, what is more important still, a management dealing with all shops direct, promptly furnishing them with working outlays and looking after the work, would in itself be conducive to economy, efficiency and speed without regard to the saving of accumulated profits referred to. That the management must avoid the fault of being too costly and cumbersome for its purpose, goes without saying. The aim must always be the simplest and cheapest management capable of yielding results.

POSITION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

The position of the Institute on this question is somewhat peculiar. Starting from the fundamental assumption that its members are acting in a purely consulting capacity, it would appear that so far the management of building construction has not formed a theme for discussion at any of the annual conventions.

The policy of most prominent architects, however, seems to have been in favor of doing work by general contract. The only important exception I have been able to find refers to the annual convention at Washington, D. C., in 1906, when a committee report strongly condemnatory of the system of General Contracts was adopted—however, without suggesting any substitute for the method condemned.

At the Chicago convention last November the question was not touched upon.

Many of us had hoped that the Institute would thresh out the matter, and regretted the action taken at Washington because it condemned the only method generally practiced without suggesting anything better. At the same sime the conventions of the American Institute of Architects consisting, as they do, of delegates from all parts of the country with rather varied interests and working under different conditions are greatly hampered in dealing with such a subject, and it is probably no more than fair to treat the subject as one yet to be taken up for discussion in spite of the Washington resolution. It is also fair to add that there exists no rule of the Institute which would stand in the way of managing work executed by individual contracts. That the Washington resolution was otherwise justifiable in every way, I think few will question.

PRESENT METHODS.

Essentially there are really but two developed methods of organized man-

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agement of building construction in existence, namely:

1. The method described in the first part of this paper as the Method of Individual Contracts, being the historic one and still in use in parts of Europe, and, on this side of the Atlantic, by a few architects and most of the Building Operators, who sometimes are architects themselves, sometimes purchase plans and do their own managing.

2. The Method of General Contracts with which the Construction Company is so nearly alike that one and the same firm frequently operates in both capacities.

The method of General Contract has now been in use for perhaps 50 years or more and has, therefore, received a thorough test,

At the end of that period it stands condemned by the American Institute of Architects, a tribunal the competence and character of which surely no one will question. It is also condemned no less severely by individual contractors who have executed the sub-contracts under the general contractors, and who lately, in cases, have carried their disapproval to the length of organized opposition, mainly, as seems to be generally understood, on account of complaints as to promptness of transmitting payments received from owners for sub-contractors' work, and on account of alleged unfair methods of competition. It is generally assumed that such practices have been only too common and that owners have suffered through the fact that, through the operation of general contracts, the credit of a contractor, sometimes none too good, has been virtually substituted for the owner's cash, or, in a word, the owner paid the cash but received the terms of "slow pay" by ordering through the general contractor.

We quote the following from the report of the Fortieth Annual Convention of the A. I. A.:

"This setting up of the general contractor has resulted in the great building corporations of the present time. They have been able to force the sub-contractors to a lower price, consequently, they have introduced a lower grade of work, and have succeeded in keeping the architects at arm's length from the man who does the work.

"And whereas the former sub-contractors were of considerable importance they are now crowded out, their output is modified, the standard of their work is lowered by price competition, pride of workmanship must give place to a commercial fight for existence, and they are reduced to a condition of despair. They must employ cheaper labor, so they fight with the unions upon issues which they could otherwise easily adjust. Sympathetic strikes occur all along the line where strikes might be confined to one particular trade and the whole matter grows more complex and difficult as we proceed.

"We see no reason for supporting a system which is uneconomical, which is disastrous to our business interests, destructive to our professional relations with our clients, and absolutely damning to our art."

The chief objections to the system of general contract, viewed as a method, are as follows:

1. On legal grounds: Undue power acquired by the contractor to injure the owner's credit. In the event of the financial embarrassment or death of the general contractor or disagreements between him and the owner or architect, the contractor controls the sub-contractors, who, however, possess lienable rights in the property, and through this fact acquire a power which might put the owner in a position of having to face the alternative of exactions or an assault on his credit by the filing of liens, and organized tie-ups of the operation.

2. On account of loss of control on the part of the architect acting for the owner.

In the case of individual contractors, a name stands for a certain quality and standard of dealings. The price and value of contractors' work must therefore vary according to the individual firms or sub-contractors whom the general contractor may see fit to employ. In choosing such, he is practically unhampered and enjoys a freedom pro-

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tected by law. Now, a system which enables one of the contracting parties to render to the other at his own pleasure, work inferior to that contracted for, or fails to provide easy and effective means for enforcing a contract for a certain definite quantity and quality of work, that surely is neither a good nor a safe system to adopt.

Now, I do not say this is done, as a rule. There are, of course, as many men with consciences in general contracting, as in any other business. I say it can be done and it is done; the great lack of recognized standards of quality in materials and workmanship makes it exceedingly hard to enforce specifications by legal means and juries are supposed to stand uniformly on the contractor's side. By individual contracts, however, the owner is able to weigh the difference in price against the difference in quality and make a choice accordingly.

3. On account of the implied dual nature of management.

The architect representing the owner and the contractor, on a business venture, are managing the building construction, or rather the contractor is managing it, subject to the approval of the architect, who is also to interpret plans and specifications and decide in constructive emergencies.

In cases of mistake, misunderstandings, accidents and any of the varied "troubles" of which building construction, at least under present conditions, seems to be rather prolific, the routine is from the foreman to the sub-contractor, to the general contractor, to the architect, and back through the same course reversed. In the meanwhile, water is running through the Danube. The dual management cannot appeal to anyone as productive of speed, economy, good work, or smooth running and even where it works fairly well, a better system should work better.

To these three points I might add a fourth, and no unimportant one at that —that of the relation to the labor unions. General contractors and construction companies are big targets, and all the disturbances of late years have centered mainly around them. Yet it is generally understood that they, as a rule, have to be extra lenient and generous, for which, if true, the owner pays as a matter of course.

At any rate, the individual contractor certainly is in a far better position to deal with them, and, I think, really does get along with less friction and trouble.

Finally, as a general thing, I do not believe any system will appeal to all men and all circumstances. Personal relations play a part, and almost every case is in a measure a different one.

However, what I am mainly contending for is the importance of ample and well-organized management by competent men. The ideal management being that headed by the man who invents the plan, and, therefore, should know all governing conditions best. But in any event, a *complete management*, a *single-headed management* and *one working on professional lines.*

I have omitted the question of estimates and of keeping within the same, as they apply to all methods alike, with this difference in favor of an organization headed by the architect, that reliable preliminary estimates would then become a real possibility. There will, of course, always exist gambling on results, charges and fees contingent upon keeping within certain limits, etc., but owners should bear in mind that, in such cases, the other side frequently is in a position to "play with loaded dice," or "betting on a certainty."

Finally, a last word on another phase of subletting. If, in the building trades, as elsewhere, a *name* stands for *quality,* no contract is definite which does not, in addition to specifications and drawings, specify the contractor.

In general letting of competitive contracts such a thing is practically impossible, and it is undoubtedly true that, as a general thing, good workmanship and good individual contractors suffer under the general contracting system, although some general contractors contend for prices which enables them to employ the best, just as some maintain very excellent organizations and do the best kind of work.

The general contractor, when his con-

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tract has been signed, may do the work as he chooses by any method or subcontractor he may select, no matter what the contract or specifications may say on that point. I understand the Court of Appeals has passed on this point.

There lies in this, of course, a temptation to some and a loophole for those who have bid too low. However, individual contractors also practice subletting as a general contracting proposition in their particular lines. This is most objectionable when firms of standing do so as a means of exploiting their names.

It constitutes, of course, a gross breach of faith on the part of such firms to charge at the rate of their own make and deliver an article of inferior make.

Arne Delhi.



View north along Madison avenue from the New Weston Hotel at 49th street, with the Lady Chapel of St. Patrick's Cathedral in the foreground. Three of New York's famous hotels appear grouped beyond the chapel; on the left the Gotham, on the right the St. Regis, and between the two the white shaft of the Plaza.

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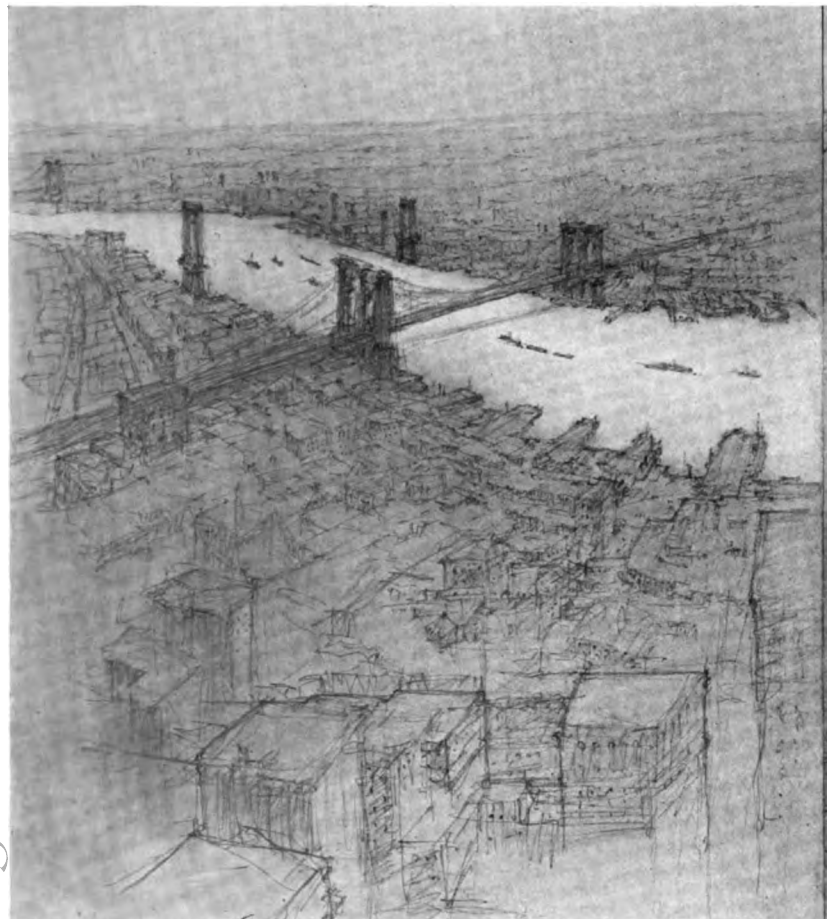
Compressions of New York

Sketches by Frederic B. Warren



To a friend who watched the making of many of these sketches is to be credited their rather ingenious title. It fits. The drawings are both incidental and accidental, as on the one hand they are but interruptions in the pursuit of other tasks; on the other, pictorial impression, born of a Sunday curiosity, from some office window, resting-place or high structure. They are drawn without a purpose other than to put on paper something that satisfies the eye—to make a hasty note of just that part of the passing architectural show the ordinary man sees about him while doing his work in the every-day ordinary way. They suggest neither the best nor the worst that the city offers as material for sketching; nor are they "typical" of New York, except that, varied as they are, a certain bigness of action, apart from the subject themselves, somewhere touches them all. Even in the headpiece, sketched from beneath the Ionic columns of an old mansion on the North River, there appears through the peaceful, almost Virginian atmosphere of the Colonial porch the penalty—or reward—of a New York background. And of all sights hereabouts that appeal to the imagination a New York background would seem the most powerful. Often superb, always varied, though at times unpleasantly so, it presents a skyline nowhere else believable. No one could possibly have viewed the "cliffs" of lower Manhattan from the East River or the bay on a misty morning and wished the picture changed, or have crossed the Hudson at early winter twilight, when the sky was cold greenish-gray, without some inward response to the sight of those light-dotted monuments to colossal enterprise. Critics have often proclaimed the city less terrifying without its color. To this conviction one may find grounds for at least partial exception. If harmony in line or color is the result of either lack of imagination, of sheer repetition, or of careful thought and study, New York can lay no claim to harmony. Fortunately, there exists a third circumstance of nature, universal and unalterable, so far as concerns ingenious man, that succeeds in making a harmonious whole from conflicting parts. In the very vastness of such a view as that from the "Singerhorn," the individual building, or block of buildings, and therefore its individual color is lost. At that height no eye cares to separate the gilded cornice of the newest loft building from the rotting tin gutters of its two-story-and-a-half neighbors. The plutocrat's red motor car and the panhandler's fruit-filled push-carts are one and the same. The city is a vast monotone, varying with the day; only the sky and water present a slightly different hue. It is the old experiment with the many-colored disk whose colors blend to one when the disk is spun. Of course there are exceptions—a park, the tall white shafts of fifty-story rivals or the sealing-wax red of a new steel bridge pier; but these exceptions make the rule more apparent. Above all, there is the smoky haze's healing influence that comes with the afternoon and like a blue wash subdues the picture with its "settle." Of course this is not to be credited to the color scheme itself. It is only a reflection and not a lame attempt at apology where none is necessary. Still it is a wise city that shows itself through a mist. But all this, however true, is a worn and threadbare theme and quite beyond the possibilities of the work at hand. Such sights are for the painter and his colors, and not for the pencil

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Early morning sketch from the Singer Building, looking northeast. Three of the East River bridges are seen, the Brooklyn Bridge near at hand, the incomplete steel piers of the Manhattan Bridge further north, and in the distance the eastern pier of the Williamsburgh Bridge.



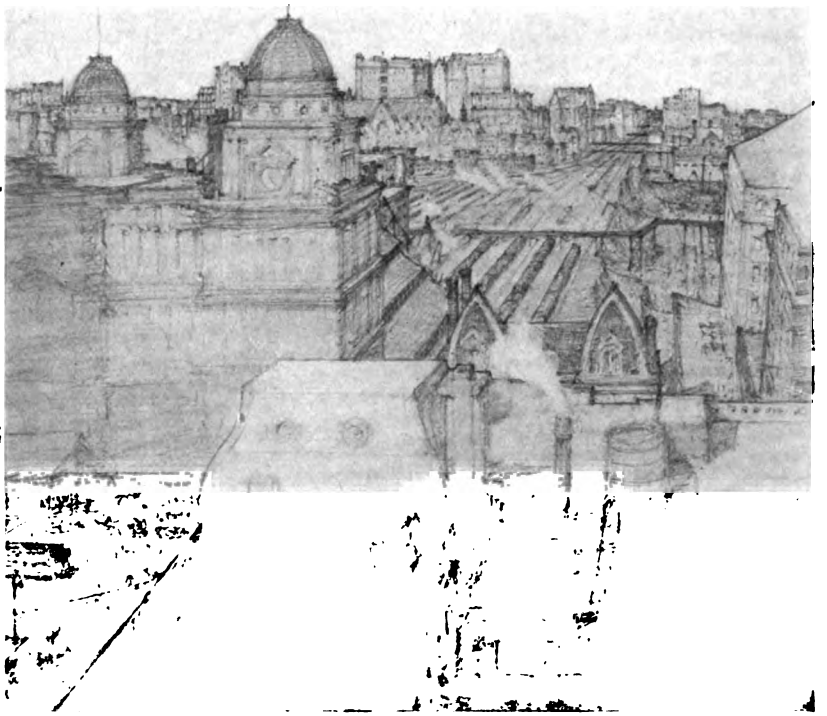
View from the Singer Building, looking west over the North River and Jersey City, with the City Investing Building in the immediate foreground. The Jersey river front is shown from the long, dark Pennsylvania train shed on the left to the station tower of the D., L. & W. Railroad on the right.

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View of excavation in N. Y. Central yards. The drawing was made from beneath the temporary bridge at the base and rear of the new granite building that faces Lexington avenue at 44th street. The centre of interest is the old station now being torn down, the towers of which appear, that of Park avenue on the left and of Vanderbilt avenue on the right. Between the two is what remains of the train shed.

The tall building against the sky is the Hotel Belmont.

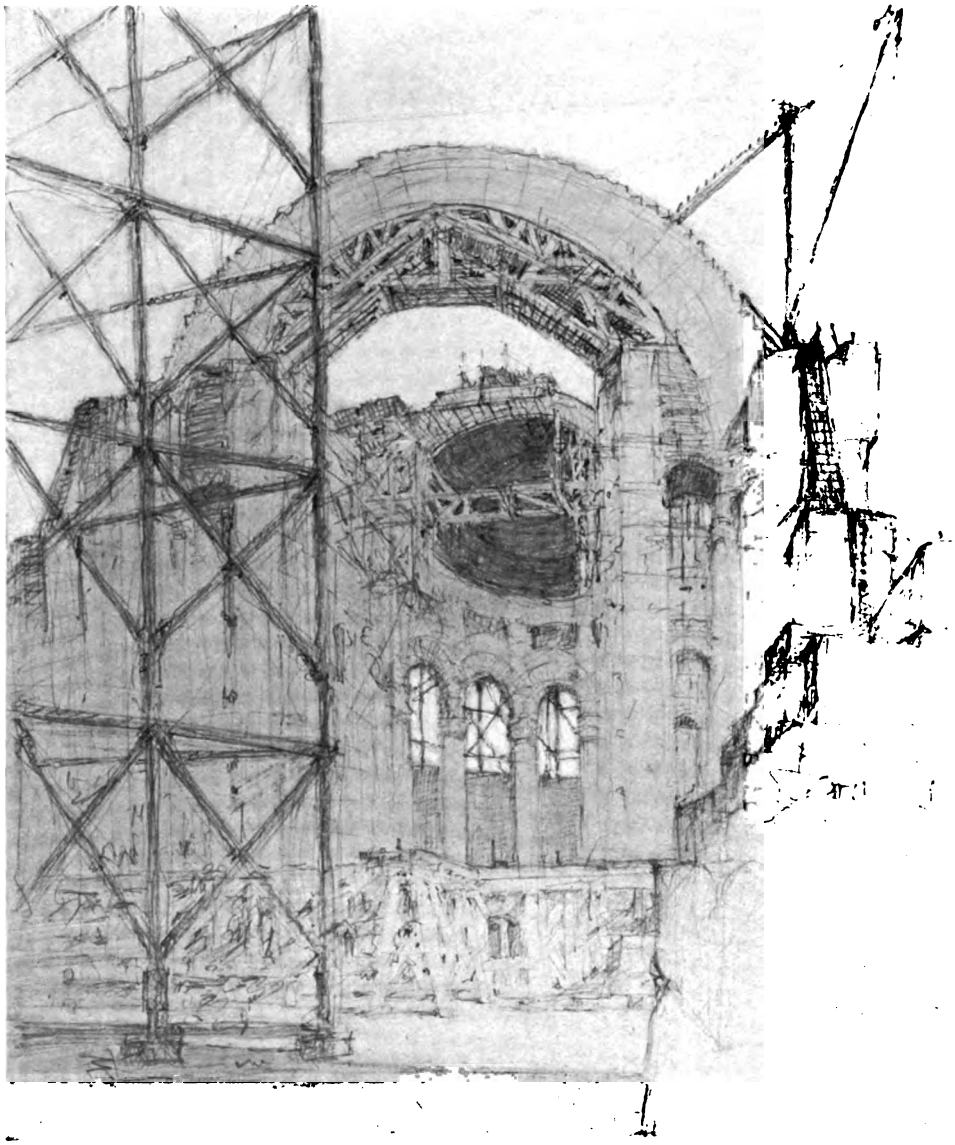


View north from Terminal Building at 41st street and Park avenue. The N. Y. Central's tracks are seen running northward, crossed at intervals by bridges that will connect the streets on the east and west sides. On the right of the railroad yard is a portion of the excavation shown in sketch on the left of this page.

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or fountain-pen on improvised sketching pads.

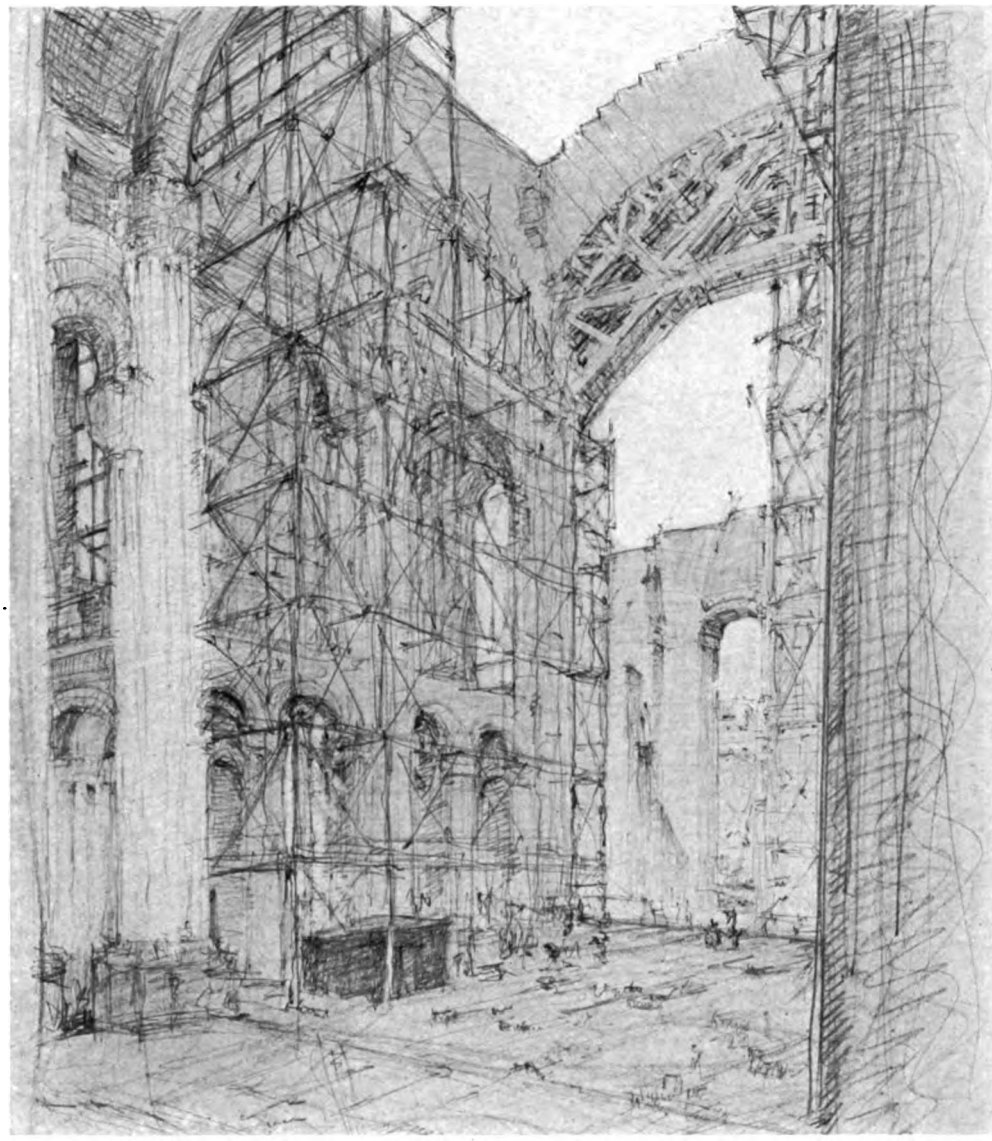
To return to "compressions," obviously what is most striking about the city is the massing of its buildings. The tremendous surfaces of light and shade, broken by some architectural treatment on one or more street façades, or the generous compositions of single structures, often fall within a modest frame. Hence such pictures as those here presented, seen on every hand by everyone, are guiltless of all pretense. Collectively they receed from rather than pursue any one idea. In fact, to say that they admit of no guidance whatsoever would be



View looking eastward into the chancel of the Cathedral of St. John the Divine, now building. The great arch is one of four that will finally carry the tower over the crossing. The scaffolding shown on the left carries the derrick booms, by means of which the other three arches will be built.

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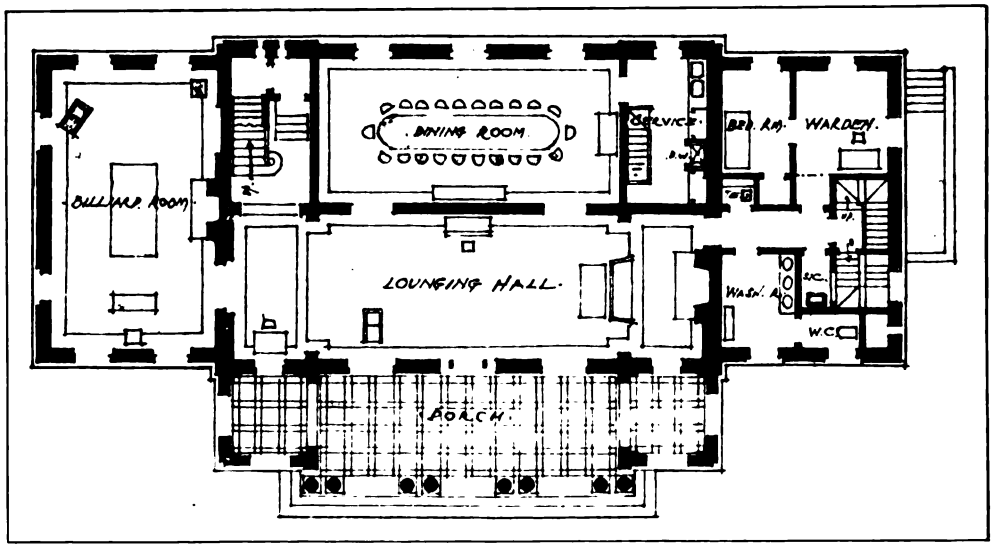
more just. Individually they begin and end simple stories in themselves, without claim beyond their all too evident limits. They are not presented for judgment. If they merit some interest the purpose is well served.



View westward from inside the Cathedral apse, in the opposite direction from that of opposite page. Here the completed arch is shown against the sky, and the southwest pier (one of the four on each corner of the square crossing) appears in the distance beneath the arch.
Through the scaffolding may be seen the inside stone facing of the chancel.
The crypt, in which service is now held, is directly beneath this chancel floor.

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PLAN OF FIRST FLOOR—PHI DELTA THETA FRATERNITY HOUSE, WILLIAMS COLLEGE.
Williamstown, Mass. Squires & Wynkoop, Architects.

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NOTES & COMMENTS

THE DECORATIVE USE OF BRICK

The value of brick as a structural material and as a fire-resistant has been amply demonstrated by its extensive use in places where difficult and heavy construction is called for and by the excellent state of preservation of many brick buildings in Baltimore and San Francisco after the recent disastrous fires. It would be difficult in fact to name a better structural and protective building material which presents, at the same time, so many advantages to the decorative artist. A people as old as the Assyrians showed, in their architectural monuments, a fine appreciation of burnt clay blocks for structure as well as decoration. The mediaeval builders of Europe showed their predilection for the architectonic use of brick in their public buildings and churches, while the domestic architecture of the eighteenth century in England and the Low Countries made an extensive use of brick in a decorative way. Nor are good examples wanting of the artistic use of brickwork in American architecture. American buildings in which there is such a use of brick are, however, not as numerous as one might wish, nor is such use of brick as common with us for structures of importance. Occasionally one does encounter a design which shows a noteworthy development of a brick theme. Let the reader call to mind, for instance, St. Paul's Chapel at Columbia University in New York among the ecclesiastical buildings or an older mercantile structure, the De Vinne Building, also in New York. How admirable, each in its class, is the effect here achieved by a comparatively inexpensive material, an effect which could not be of greater architectural consequence if done in a more costly material. The same might be said of the building of the Phi Delta Theta Fraternity house at Williams College in Williamstown, Mass., which is illustrated herewith.

The characteristics and limitations of brick are in this design recognized and respected, modeling and composition being subordinated to textural effect. As a consequence, the projection of cornices and mouldings is slight, while much attention is paid to the decorative arrangement of the different shapes and colors of brick and tile. The result is a building that is significant of its use, too dignified for a domestic dwelling or a social club. Although just finished, it does not look new. The materials are a rosy red brick, a slate roof, some limestone bands and colored tile. The color combinations are daring as is the brick design. Many of the club's symbols have been executed in colored tile and inserted into the brickwork. The Swastika, emblem of mystery, shows between the first story windows surrounded by a brick pattern which is evidently symbolic. The window aprons each show a significant diamond design. Under the band of tile at the third story is a monogram in hammered iron. In the brick porch is a band of tile showing a grape pattern. There are, in fact, so many features in brick and tile that the danger is a loss of dignity, but all this has been done with such delicacy that the result is interesting, revealing possibilities in a material which is destined to be a consequential element in the American architecture of the future.

AN INVITATION FROM ST. LOUIS

The president of the powerful Civic League of St. Louis, in his annual address, suggested that there be organized one of the features of the celebration of the one-hundredth anniversary of the incorporation of St. Louis as a town, a national City Plan Conference. His suggestion is that "the civic organizations of all the cities in America" be invited to send representatives to the congress; and that there be consideration at the conference of "those problems which relate particularly to a city's physical growth, such as street plans and improvements, street transportation, the development of suburban areas, grouping of public buildings, extension of park and boulevard systems, and such other municipal questions as enter into the physical expansion of the average American city." As his suggestion was not publicly made until it had been approved by the League's executive committee, which had resolved to take definite steps to promote the suggested

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meeting, as the anniversary does not occur until November, 1909; and as the Civic League of St. Louis has shown ability to do exceptionally well whatever it undertakes, it would appear that America is in a fair way to have a very interesting civic conference.

PLANS FOR CEDAR RAPIDS

A commission for a town planning report that was given in the early summer by Cedar Rapids, Ia., is of interest as the first of its kind to be given by one of the new Commission-governments. For Cedar Rapids is now operating under what is called the Des Moines plan—a commission of five men, comprising the Mayor and the heads of the four main departments of municipal activity, elected at large and untrammelled by a council. The Cedar Rapids commissioners, who are said to be men of unusual ability—coupling high civic ideals with much of practical experience—had not been in office two months when they sent for Charles Mulford Robinson to make a report and comprehensive plan toward which they could work in the city's development. Mr. Robinson's report, which has just been submitted, considers changes in the street plan, park and parkway additions, and local improvements and additions. It proposes the acquirement of one of the river islands, which is in the very heart of the town, its parking and the location thereon of a new city hall and court house. A beautiful bridge of concrete arches already connects the island with either shore.

WIDENING FIFTH AVENUE

The removal of the sidewalk encroachments on Fifth Avenue, New York, below the Park is from many points of view an interesting piece of business. It is interesting that so many years of agitation and legal effort should have been a necessary precedent; the cause of the change, in the marvelous growth of traffic, is interesting; it is interesting that the encroachments should ever have become so many, substantial and costly; and the ingenuity to which builders and architects will have to go in effecting the removals is to be entertaining at least. Fifth Avenue is a hundred-foot thoroughfare, from property line to property line. As originally laid out, the roadway was made forty feet wide, and each sidewalk thirty feet, for it was believed that the avenue, becoming an overflow for the fine houses that could not crowd about Madison Square, these walks would be fashionable promenades. The predictions came true; but things did not stop happening as soon as the prophesies had been fulfilled. With amazing rapidity, business has flowed into the avenue, sending the fashionable folk with their dignified houses scampering before it; and business has filled the roadway so that it has become practically impossible for vehicles that are in the middle lines to get to the curb, however much their occupants may wish to stop at shop, hotel, or club. And that is a serious thing for business. So, of course, the road had to be widened, and the walks—the theoretical thirty foot walks—cut down. The thirty additional feet of roadway secured by adding fifteen feet on a side, will permit four more lines of vehicles—two going each way.

It is worth noting that the rearrangement has become necessary at a time when the science of modern town and city building is laying its stress on narrow roadways and broad sidewalks. But the facts still favor the theory. If great Fifth Avenue's enormous stream of traffic is going to be comfortably cared for on a seventy foot roadway, why should little Squepunk pave a full width of sixty to eighty feet between curbs—to the impoverishment of property owners, to the creation of heavy maintenance charges, and to the serious menace to life of the fine trees? And yet little Squepunk does this, on streets that are two blocks long and that terminate in a hillside or at the ocean. Squepunk likes to be able to turn its automobile—for it has not time to go around the block, or to back it—and, especially, the flattery of the paving contractor has been as music in its ear. But poor, foolish, Squepunk! It is trying to be like papa by wearing clothes that are bigger even than his. No town ever looked busy, however, with wide empty streets.

MISGUIDED MERCHANTS

There has been an interesting contest in Rochester over a projecting sign ordinance that may have its suggestion for other communities. The lighting company took into its employ from another city a man who had specialized on illuminated signs. He very properly, to earn his salt, went quietly

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among the merchants and interested several to the extent of allowing him to make elaborate signs for such advertisements. Illuminated signs were already projecting over the Rochester sidewalks all sorts of distances without molestation; but when it came to making contracts for new signs, that were to cost large sums of money, there was naturally inquiry as to the ordinance. The discovery then was made that the projection of illuminated signs more than two feet from a building was prohibited. Mayor and council were promptly appealed to, and persuaded. There was talk of making Rochester the city of light; the splendid brilliancy of the downtown streets was pictured; and an ordinance was introduced to extend the limit of such projecting signs to five feet. There was a good deal of local interest in Rochester in the beautifying of the city, a movement that had the mayor's sympathy, and there was appeal even to that sentiment. The mayor announced himself in favor of the proposed ordinance; and a petition, largely signed by merchants, was presented to the councilmanic committee to whom the ordinance had been in regular course referred. But it happened that the Chamber of Commerce had a City Beautiful committee under the chairmanship of a man who could do his own thinking. The subject came to his notice only twenty-four hours before action was to be taken; but he summoned his committee. He explained to them that he was embarrassingly placed, for the City Beautiful committee ought to disapprove of such an ordinance; but that, as representative of the Chamber of Commerce, whose members had largely signed the petition for it, opposing action could not be taken consistently. He accordingly submitted a resolution, which the committee adopted, "respectfully calling the attention" of the council to certain facts. There then followed seven arguments, succinctly and strongly put, against the disfigurement of streets and buildings with large projecting illuminated signs—breaking perspectives, destroying vistas, injurious to architectural effect, ugly by day and commonplace by night. The resolution was published next morning in the newspapers and was sent to mayor and council. At once a leading merchant—the head of the largest bookstore—who had personally appeared before the councilmanic committee in favor of the signs sent word that since reading the resolutions he desired to withdraw his support, and the name of his firm from the petition. Other similar action followed. The mayor very honorably announced that he had himself become doubtful, and the astonished council postponed action for two weeks. They were busy weeks for the lighting company. Canvassers were put out to get a big petition, and hearing followed hearing. At last the council enacted an ordinance allowing a four-foot projection, instead of the five requested, and requiring a $4,000 indemnity bond for each such construction—a requirement that took the snap out of the projectors' enthusiasm. It was not much of a victory for either side. But it showed what could be done by a plain statement of all the facts, and suggests that unwise civic action is taken more often through lack of thought than through deliberate choice.

NIGHT ILLUMINATIONS

Two positive suggestions that were made in the recent fight over the projecting illuminated sign ordinance in Rochester indicate that, in failing to stand by the opponents to the larger license, the city lost an opportunity to do something interesting and individual. One was that if larger projecting signs were to be allowed, they should be subject on artistic grounds to the criticism of a commission, of which at least one member should be an architect. To make its criticisms effective, it was recommended that the commission be officially appointed and paid—the chairman of the committee which made the suggestion stating that he would decline appointment. The other suggestion was that a complete prohibition of illuminated projecting signs need result, and would result, in no lessening of the brilliancy of business streets at night; as there were other beautiful ways of advertising by electric lights—ways of which there were already examples in Rochester, where buildings or cornice lines, or first story lines are outlined with beads of light after the manner of the expositions. It was pointed out that a little co-operation among the merchants in this sort of advertising would, at no greater individual expense, produce in the aggregate an effect that would be delightful and unique among cities. It would seem that the Rochester lighting company was short-sighted in not throwing its influence in favor of such a plan. Some city is going to make a reputation by such action, and will have the satisfaction of setting an example that for its merit will be widely followed. The projected illuminated sign is

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not only commonplace, but a very crude and bizarre device, costly, as all such individual action is as compared to collective action, and it is relatively ineffective. When once we have outgrown it, and have learned to create on business façades a harmonious night beauty, we shall doubtless wonder at our present stupidity.

TUNNELS AND CIVIC SPIRIT

It is pertinent to inquire what will be the effect of the subway and river tunnels on civic spirit. They of course are only the agents. The thing that is to have an effect is the underground travel, the daily ebb and flow of the tide of business through a dark hole beneath the great city which its people are supposed to love, but of which they who use the subways must know less and less. Will the city be loved and sacrificed for by those who do not know it?

For years it has been a trite saying that New Yorkers do not know New York. In the strain and rush of life the mass of the citizens go by the shortest way from home to shop or office and back again. They know well a little region at either terminus; they have had hitherto a smattering, superficial knowledge of a thin strip along the route of their journey—as the eye wandered now and then from the newspaper or caught glimpses between obtruding shoulders on elevated train or surface car; but there has been no general sight seeing of their own city by New Yorkers. New buildings, institutions, parks, have been read of in the newspaper but not hunted out and personally visited. If this has been so while travel was above ground, what will be the event now, and in the coming years with the travel underground? From the ferryboats one could get a good bird's eye view of a large section of the city—and one did get it, too. But now not the Bronx alone but New Jersey and Long Island as well will daily be pouring into Manhattan by underground tube, and similarly drawing out of it, multitudes of pepole whose acquaintance with the city will certainly be limited to a block or two. For, given a holiday, New Yorkers do not spend it going about town. They seek shore or country, and again they go sightless, through burrowed ways.

The loss is to be public rather than private. There is no danger that architecture, for example, will lack the inspiration of a crowd of appreciative witnesses of its achievement. Whatever the subterranean and subaqueous passages, New York streets are going to remain full of people. But the crowd will be composed in part of strangers, and in part of what may be called local traffic, worth building well for, but not inviting great civic achievement because not furnishing the means for it. As far as the crowd is composed of strangers, they cannot be taxed for the beautifying of the city; as far as it is composed of the local traffic, it is made up in each locality of the same persons over and over again, and persons with as little appreciation of the mightiness of the whole city and the splendor of its obligation as are all the rest of the citizens. They are not a people likely to be stirred by appeals for great civic achievement, not likely to lend the support of public opinion to the assumption of heavy financial obligations for the improvement of any other section of the town than their own. More and more will be emphasized a provincialism within New York itself, a lack of civic consciousness in so far as this is based on true appreciation. If the tunnels do produce this effect, the loss of the city will be, indeed, a very great one.

CRITICISMS OF THE ENGLISH TOWN-PLANNING BILL

The elaborate town-planning bill which John Burns presented to Parliament in the early spring suffered, with other Parliamentary business, unexpected delays through the death of the premier, and the resulting changes in the government. Thanks to that delay, it has received an enormous amount of discussion. Not a little of this is illuminating to America. To architects the most interesting criticisms—it should be said that as a whole the bill has been cordially approved with a rare unanimity—are those that deal with the provisions on which are dependent the aesthetic aspects of town planning.

The bill as drawn provides that a town planning scheme may be made as respects any land which appears likely to be used for building purposes, with the general object of securing proper sanitary conditions, amenity, and convenience in its platting. The Local Government Board, of which Mr. Burns is at this time the president, may authorize the local authority, which is to mean the council of any borough, urban area or rural district, to prepare such a town planning scheme with reference to any land within, or in the neighborhood of,

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their area. Such scheme, before it becomes effective, must be approved by the Local Government Board.

Raymond Unwin, who as architect to the First Garden City, Limited, and to the Hampstead Suburb Trust, is a foremost authority on the subject, urges that there be created "some special body, possibly forming a definite department of the Local Government Board," which should have the responsibility for this town planning work. He says: "The Local Government Board by this bill is undertaking wide, novel, and important functions, and such as should hardly be merged in the general work of the department, but should be entrusted to a specially created and specially qualified body. . . . I think also that additional power should be given to the Local Government Board to secure that proper advice is obtained by the local authorities on the subject of aesthetics. It seems a thousand pities that the experience which has been gained in other countries, both on the prac-



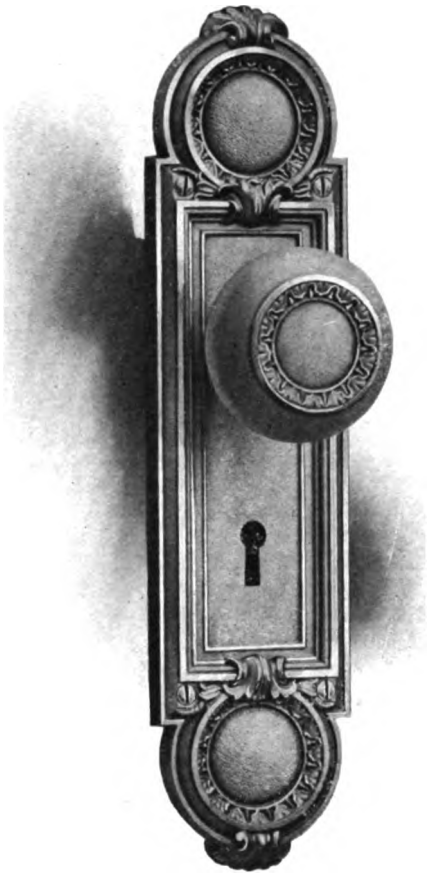
RESIDENCE OF THE LATE LEOPOLD EIDLITZ (1851-1897).
86th and 87th Streets and Riverside Drive, New York.

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tical and artistic side of town planning, should have to be re-learnt experimentally in our own country. . . . The central authority might easily command the services of men who from previous knowledge and experience are able to sum up to some extent the experience of other countries in dealing with this problem, and who could give invaluable suggestions, both practical and artistic." Walter Crane, approaching the same conclusion from a somewhat different point of view, expresses a fear that the bill's proposed "centralization and officialism would probably lead to a certain uniformity in the plans for town improvement and extension" and notes that as the bill is drawn "there appears to be no security that the plans, even if approved by the Local Government Board, would be really comprehensive and on the best lines, or that the Board would command the best architectural advice." "This," he says, "is a most important point. In fact, the whole question of design in its highest sense has been left out. . . . Without some first-rate architectural advice—and the Local Government Board ought to be able to refer to experts on this matter, either to named individuals of accepted standing, or to a permanent council of advice—we might have just as hideous towns as before, although possibly more sanitary in the engineering sense. The absolute authority of the Local Government Board would probably be on the side of uniformity in design and construction of dwellings and streets; and the tendency would be, I fear, towards a stereotyped kind of Government pattern all over the country, which would be a blow at that development of characteristic local style and treatment and the use of local materials. that have done more than any other cause to give delightful variety and historic interest to our English towns and villages." He notes further that "no protection is mentioned in the bill for the preservation of historic buildings in any town planning or extension." Professor Geddes, whose word on this subject is entitled to great weight, has a similar fear. He anticipates little of artistic merit in plans to be brought forward by local authorities—"prepared in the very offices which have hitherto produced too much the present confusion and ugliness of our cities"—and yet he fears that the Local Government Board would shirk "the ungracious task" of disapproval save "in the gravest cases" involving "obvious breaches of hygiene or gross failures in economy or utility." He would have the subject gone into in each locality much more thoroughly and slowly than contemplated by the framers of the town-planning bill.

In the chorus of praise that greeted the bill these interesting suggestions stand out, commanding attention and opening a fruitful field for thought of which the pertinence is certainly not for England only.

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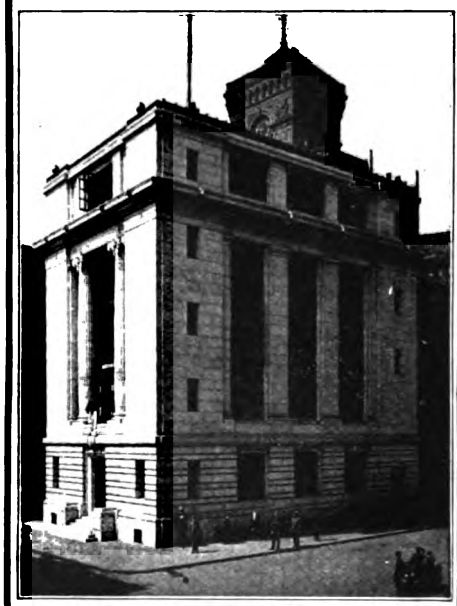
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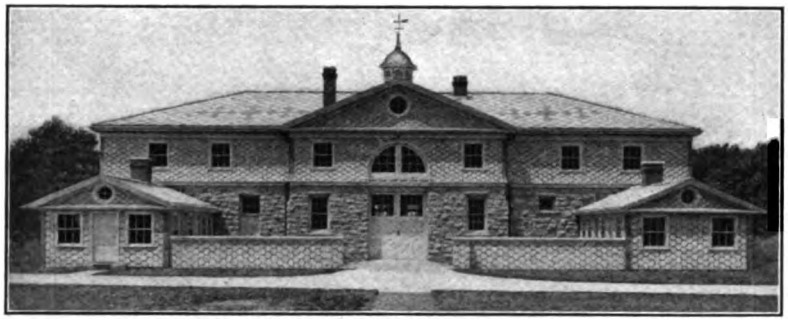
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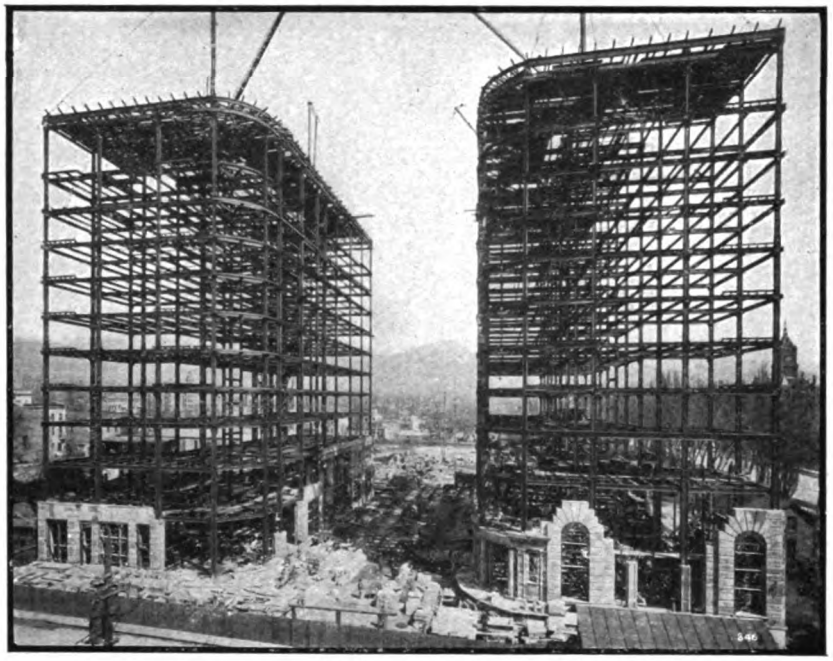
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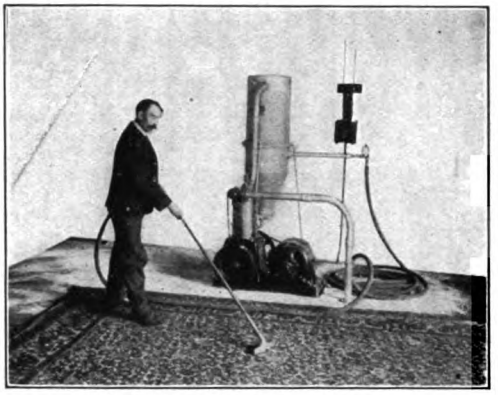
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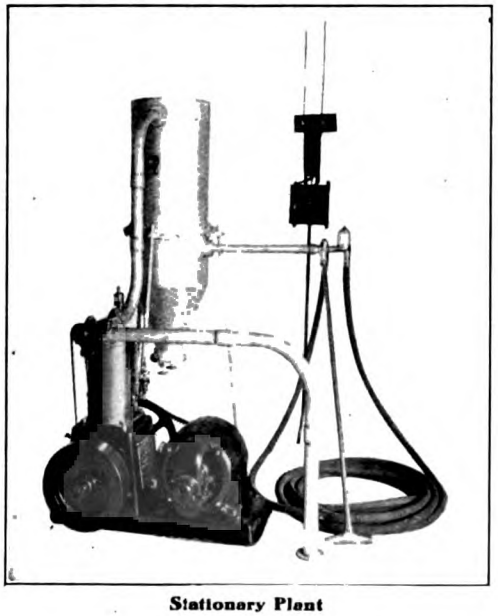
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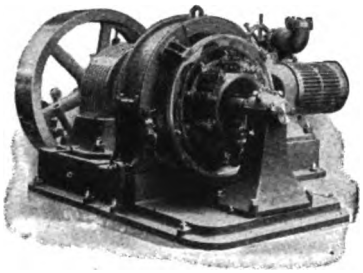
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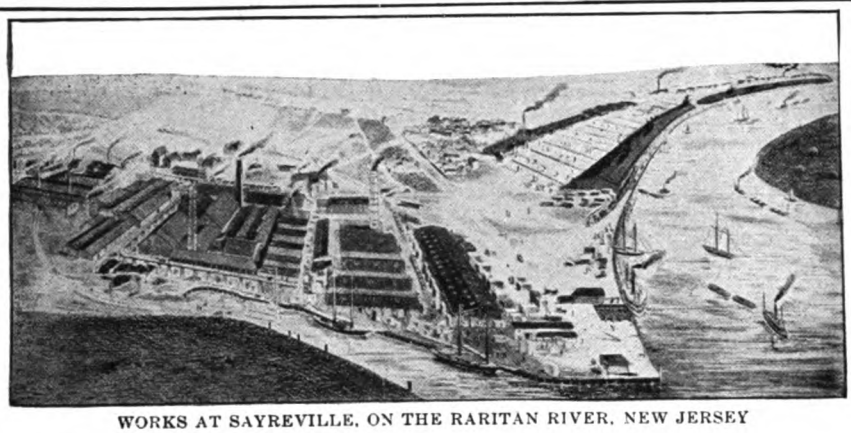
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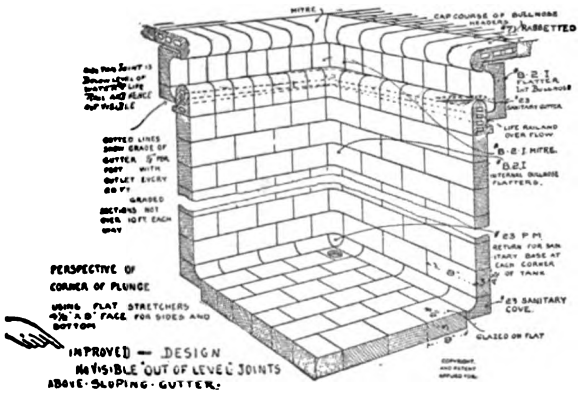
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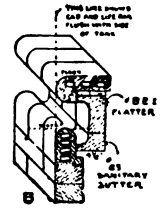
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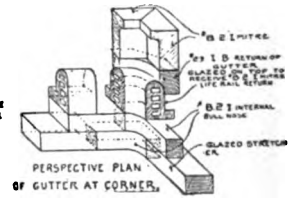
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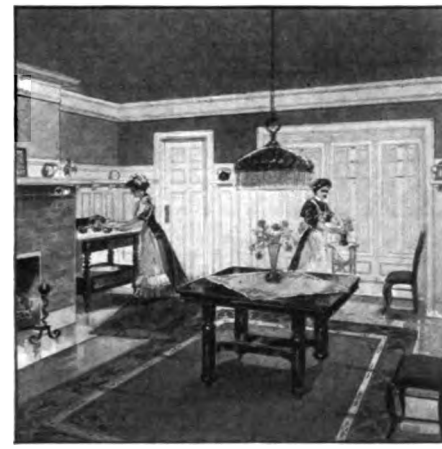
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you do not know the beauty of a true stain. Our colors are clear and transparent, and give soft, velvety effects which are unequaled, because they are scientifically and honestly made. Every gallon guaranteed. The finest pigments, the best fixatives and Creosote, "the best wood preservative known"—(Trautwein.)

Send for samples of stained wood and color chart showing artistic combinations.

Samuel Cabot, Inc., Sole Manfrs., Boston, Mass.

Agents at all central points



A. G. C. Fletcher, Architect, New York



Residence of J. L. Johnson, Esq., Hackensack, N. J.
Mann & MacNeille, Architects, New York

PARKER, PRESTON & CO.'S Art in Shingle Stains

Waterproof and Odorless

Architects' Perfection Clients' Delight

Most protective and durable Shingle Stains on the market. Shed water like a duck's back.

Handsome Cabinet of Colors Free

Weatherproof Coating for Stucco, Concrete, etc. Adamant Coating, Waterproof Flat Brick Stains, Waterproof Brick and Stone Filler.

Manufactured by

Parker, Preston & Co., Inc.

Norwich, Conn., U. S. A.

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ELIE J. MONEUSE, President — LOUIS H. HUOT, Vice-President

Established 1852

Duparquet, Huot & Moneuse Co.

MANUFACTURERS OF

French Cooking Ranges

TRADE **IMPERIAL** MARK

AND COOKING EQUIPMENTS OF EVERY DESCRIPTION
FOR HOTELS : RESTAURANTS : CLUBS : FAMILIES
INSTITUTIONS : YACHTS : STEAMSHIPS, ETC.

43 and 45 Wooster Street, New York

BRANCH HOUSES

1420 Penn Avenue, N. W., Washington, D. C. — 88 and 90 North Street, Boston, Mass.

Layouts and Details, also Catalogue, furnished upon application

THE JAYCOX MFG. CO.

FISHKILL LANDING, N. Y.

Self Closing Blind Hinge

NEW SIMPLE

WHY THEY ARE THE BEST:

1st There is no noise from wind.
2d There is no slamming.
3d They can be closed without opening sash.
4th There is nothing inside to mar the woodwork.
5th They are strong; guaranteed not to break.
6th They are as easy to put on as any on the market.
7th They are inexpensive.
8th The blinds can be held in any position.

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STANLEY'S

Ball Bearing Hinges

In Wrought Bronze and Steel

BEAUTIFUL
NOISELESS
STRONG

Artistic Booklet and Calendar Free

THE STANLEY WORKS
NEW BRITAIN, CONN.

79 CHAMBERS STREET — NEW YORK CITY

See our catalogue in "Sweet's" Index

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The difference in sheathing papers is the difference between a well heated and a badly heated house.

NEPONSET

WATERPROOF SHEATHING PAPER



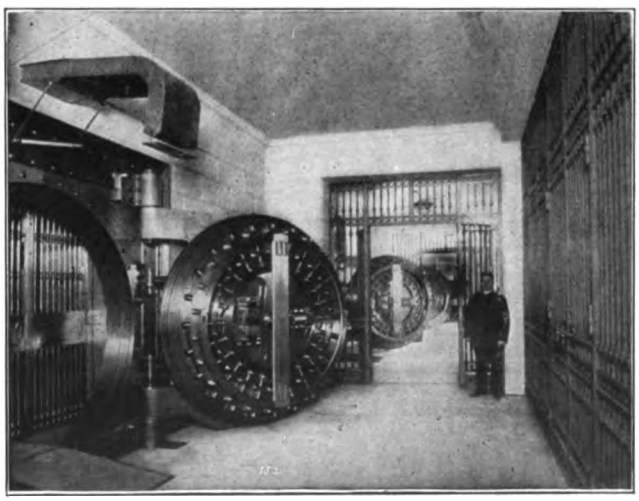
Residence Sheathed with Neponset, Germantown

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Specify NEPONSET Sheathing Paper and insure yourself and your client a properly heated house

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Makers of Paroid and Proslate Roofings, Kosat Insulating Papers and Florian Sound-Deadening Felt



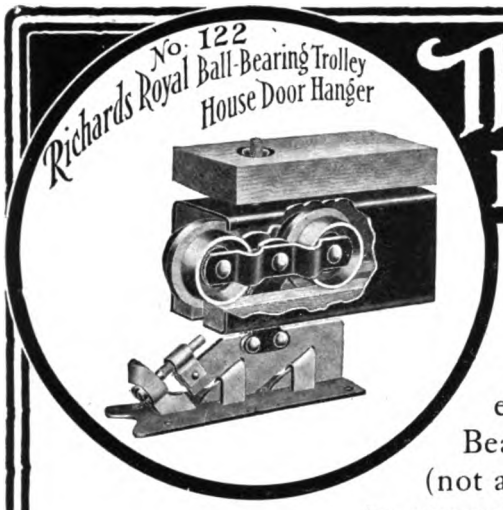
Battery of Vaults in New Building of the American Trust and Savings Bank, Chicago, Ill.

Manufactured By **York Safe and Lock Company**

Makers of Bank and Safe Deposit Vaults, Fire and Burglar Proof Safes and Vault Doors, Safe Deposit Boxes, etc.

Factory: YORK, PA. **Salesroom: 55 Maiden Lane, NEW YORK CITY**

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The "RICHARDS" Line of Door Hangers

Free to Architects

We will send free, by prepaid express, any one of our Royal Ball Bearing Trolley House Door Hangers (not a small model, but the thing itself), to any architect who will look up our line on pages 574-576 of SWEET'S INDEX. Only by having one of these hangers actually in his possession may the architect prove to his own satisfaction how unexcelled they are.

The RICHARDS MANUFACTURING CO. Inc
Aurora, Illinois. 101 Reade St., New York.

APPROVED FIREPROOF WINDOWS

PIVOT AND DOUBLE-HUNG

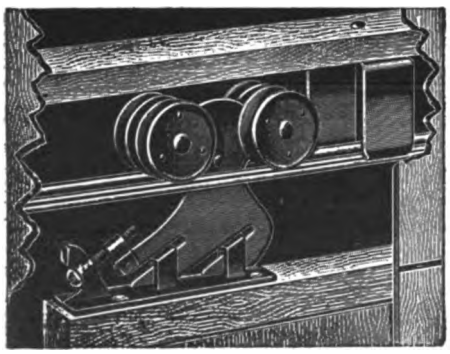
The LEE Hollow Metallic Windows are inspected and labeled under the direction of the Underwriters' Laboratories (Inc.)

Blue Prints Showing Construction Sent to Architects on Request

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"Reliable" Parlor Door Hangers

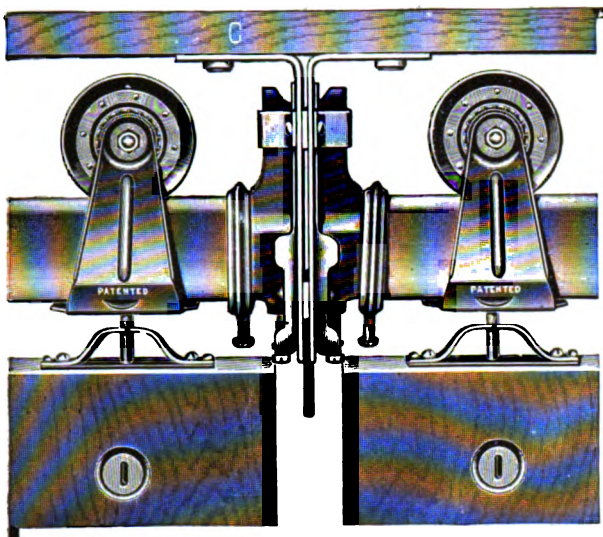
Are a Standard of Quality

We are making the **most efficient** and **complete** line of parlor door Hangers; the **most simple in cost** and **installation.** We manufacture both **adjustable** and **non-adjustable track.**

Write for 1908 Catalogue.

ALLITH MANUFACTURING CO.
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PERFECT
Sliding Door Hangers

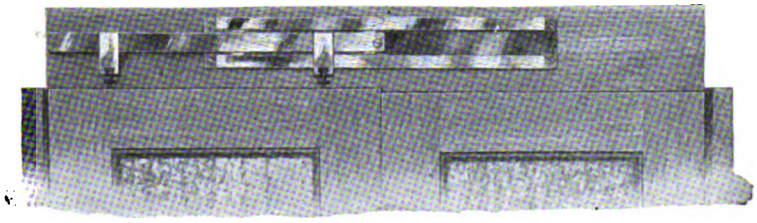
Practical and Adaptable in Use

Profitable to You

Can be installed in single-studded six-inch walls. Hanger surrounds rail and cannot get off the track. Rails supported at ends only, yet cannot sag. Adjusted by *one* screw, always accessible. No wood fibre or other unstable material used in either hangers or rail. Planished steel bearing surfaces, together with highest grade steel balls, cause doors to move silently and easily. Write at once for booklet "A" and learn of the profit to be made on the most practical sliding door equipment on the market.

THE BRIDGEPORT HARDWARE MFG. CORPORATION, Bridgeport, Conn.

"Reliance Hangers"



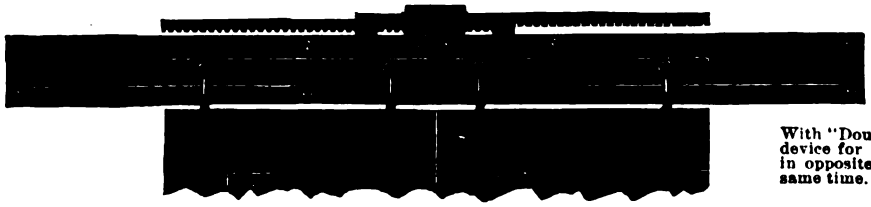
Hanger Showing Single Door—Closed

Are too simple in construction to get out of order. Just two stationary, grooved, steel tracks with a third, grooved, steel track moving between the two on steel balls. They are Strong, Durable and Easy Running. In use in more than 75 per cent. of the biggest buildings erected in New York in the past two years.

RELIANCE BALL BEARING DOOR HANGER CO.

Office, 1 Madison Ave., New York Factory, 292-294 Himrod St., Brooklyn, N. Y.

Agencies in all the principal cities



Double Hanger Showing Doors Closed

With "Double Gear" opening device for moving two doors in opposite directions at the same time.

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It Has Stood The Test

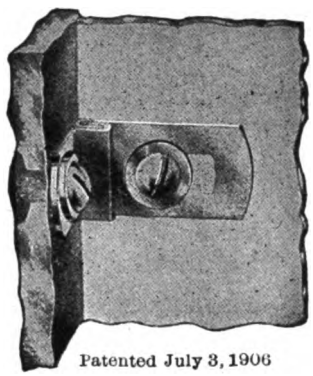
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The Petz system of store front construction has stood the test of practical usage, and has the unqualified indorsement of hundreds of merchants, contractors and architects.

It offers superior advantages in strength, ease of installation and artistic finish and design. The most practical store front construction on the market. Indorsed by all plate glass insurance companies. Write for our booklet, "Listen to Petz," today; it's free.



DETROIT SHOW CASE CO., 477 West Fort Street, Detroit, Mich.



Patented July 3, 1906

All-Glass Store Fronts and All-Glass Show Cases
REQUIRE MY

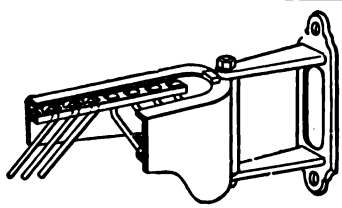
Interchangeable Safety Clasps

They absolutely prevent breakage of glass under all conditions

Neat, Durable and Adjustable to All Angles.
Proven by nearly two years' test to meet all requirements. Sample sent upon request.

T. VAUGHAN - Everett, Mass.

You can't lose the pins



"WIRT'S ECLIPSE" SWINGING HOSE RACK

"To see it is to specify it."

Get the Idea?

Hose hung on PIVOTED METAL PINS, which instantly drop each fold as hose is withdrawn. Pins remain hanging ready for immediate use when hose is returned to rack.

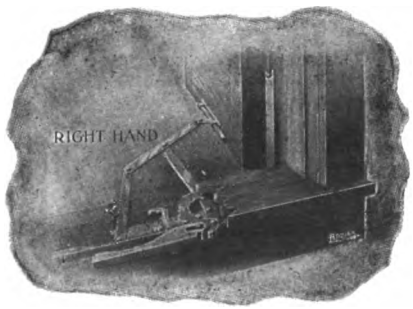
Made of *malleable iron;* any size, any finish.

Fitted with pipe-clamps or wall-plates as desired.

We also manufacture the well-known "**HUMP**" **SWINGING HOSE RACK** and a full line of Wall Reels. Catalog on application.

See "Sweet's," page 1362

WIRT & KNOX MFG. CO.
North Fourth Street, Philadelphia



Write us for full size details of window framing for correct application of the Sperry Casement Window Adjuster. This is essential. Do not vify without this detail before you.

Casement Windows

The Sperry Casement Window Adjuster **opens, closes** and **locks** the casement without disturbing the inside screen or draperies.

Operates entirely underneath the stool.

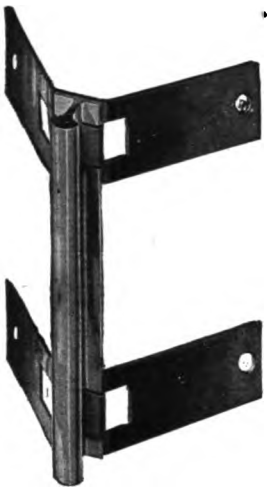
Holds the window rigidly in any desired position.

Out of sight when not in use.

THE OSCAR C. RIXSON CO.
111 West Harrison Street **CHICAGO, ILL.**

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The Parker Metal Corner Bead



is Hot Galvanized Steel and will not rust.

Strike any Corner Bead that has side punchings for the alleged keying of the plaster a moderate blow on its face, and you will break the bonds as far as the vibration extends.

The Parker is the only bead that will hold plaster on its blade without punching. The plaster is keyed between the flange and the extending lip with a grip that will withstand any blow the face of the bead is likely to receive.

The Parker builds the corner for the plasterer as straight as a plumb line, and puts straight edges and plumb lines out of business.

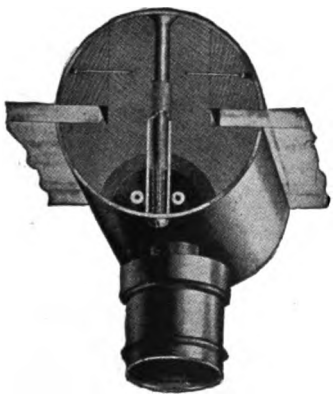
The Parker Corner lasts the life of a building, and saves in repairs many times its cost. It takes the place of wood trim when used around windows, and makes a fireproof, sanitary, artistic corner, at trifling expense.

Stock lengths, six, seven, eight, nine and ten feet, fifty strips in a bundle.

W. F. PARKER, Manufacturer

856 ELEVENTH AVENUE **NEW YORK**

National Store Front



The Most Brilliant, Beautiful and Graceful Front in the World

Pat. 1907

Minimum Light Space taken up
Maximum of Strength

Same contour and finish inside and out. All glass sets from outside. Low rate of insurance.

Absolutely Dustproof Construction

With Electric Light Fixture Combined
Every Glass Jobber in United States handles it.
Write for Catalog and Prices.

National Store Front Co.

PITTSBURGH, PA.

Kawneer System

of Glass Setting

FOR STORE FRONTS

Means

Greatest Glass Width consistent with strength.

Freedom from rust, rot and the necessity of painting.

A reasonable rate of plate glass insurance.

And a simple, inconspicuous method of draining the glass, one that makes window cleaning easy.

* * * * * *

A store front is a salesman the rating of which depends exactly upon how many dollars it can turn into the store.

A Kawneer Store Front, copper and glass from "I" beam to sidewalk, correct architecturally in every way, is a Business Getter.

Catalog on request.

Kawneer Mfg. Co.

123 Factory St., Niles, Mich.

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"CASTELL"

DRAWING, COPYING AND INK PENCILS

THE FINEST IN EXISTENCE

Sold by all stationers and dealers in artists' materials. Sample sent to all parties interested on receipt of 10 cents in postage stamps.

A. W. FABER, 80 Hecker Street, Newark, New Jersey.



WILLSON'S

Building Directory

PATENTED

ONLY CHANGEABLE DIRECTORY that can be kept ALPHABETICALLY correct. Send us number of rooms in building and we will give you the size of space required in marble; also full particulars and our new catalogue.

Originated and manufactured by

The Tablet and Ticket Company

Chicago New York San Francisco

Fine Inks and Adhesives

HIGGINS'

DRAWING INKS, ETERNAL WRITING INK, ENGROSSING INK, TAURINE MUCILAGE, PHOTO MOUNTER PASTE, DRAWING BOARD PASTE, LIQUID PASTE, OFFICE PASTE, VEGETABLE GLUE, ETC.

Are the finest and best goods of their kind



Emancipate yourself from the corrosive and ill-smelling kind and adopt the **Higgins Inks and Adhesives.** They will be a revelation to you. The Drawing Inks are the Standard of the World. Eternal Ink writes *everlastingly* black. The adhesives are clean, sweet, and remarkably efficient. For home, office, library or school, for all private and public use we guarantee them absolutely **the best.**

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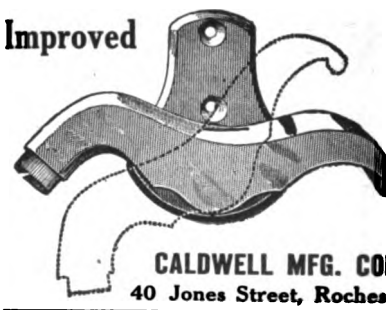
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ALSO CHICAGO AND LONDON

Empire Door Holder

Improved



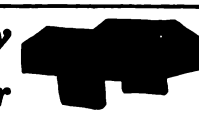
50 per cent. greater pressure on the floor than any other. Easy to apply Easy to operate.

CALDWELL MFG. COMPANY

40 Jones Street, Rochester, N. Y.



Specify and Ask for



HERCULES

Steel Joist Hangers and Post Caps

Strongest and Lightest Made. Labor Savers

MANUFACTURED BY

The Hercules Steel and Iron Company

OFFICE:

337 The Arcade, CLEVELAND, O.

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The Waterproofing Co.

Boston **New York** **Pittsburgh**
147 East 35th Street

Engineers and Contractors for Waterproofing

The Terminal Buildings of the McAdoo Tunnel System have beneath them the largest and deepest cellars ever constructed. All basement floors are waterproofed with Hydrolithic Cement. Total area covered, 89,000 sq. ft. Lowest elevation, 75 ft. below curb, 58 ft. below normal water level.



The Hudson Terminal Buildings
Clinton & Russell, Architects

The Singer Building
The U. S. Express Building
The German-American Ins. Co.'s Bldg.

The Seligman Building
The City Investing Building
The Griswold Building

Write for pamphlet describing Hydrolithic Cement Waterproofing.



HILL'S Famous Dryer

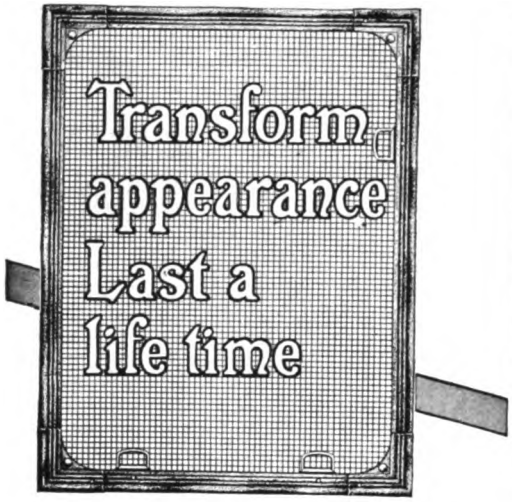
SPECIFICATIONS are never complete until the smallest of the **Details** is cared for. One of the **Important Details—Hill's Famous Dryer.**
More necessary than the tubs in the kitchen.

SPECIFICATIONS:—Written "HILL'S."
CONTRACTOR Furnishes "HILL'S."
RESULT: PLEASED CLIENT.

Adapted to Roof, Balcony or Lawn. Holds 110 to 150 feet of line.
Write for catalogue.

HILL DRYER CO., **WORCESTER, MASSACHUSETTS**
1133 BROADWAY, NEW YORK

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Higgin *All-Metal* Window Screens

Have an inconspicuous beauty that transforms the appearance of a house.

The frames, made of steel or copper, are but 9-16 of an inch thick; they give a trimness and finish impossible to obtain with wide, thick, wooden-frame screens. They are finished in a variety of enamels and dull antique.

The difference they make in appearance alone would justify the slight difference in initial cost. This is saved many times over, however, by the difference in wear. They neither stick, crack, warp nor rot. Weather does not affect them. The netting, of solid bronze wire, is *rust-proof* and of fine mesh, that keeps out mosquitoes as well as flies. Offices in all large cities. Measurements taken, screens delivered and fitted anywhere in the United States.

Catalogue showing Higgin Screens for every style of window and door—for old as well as new buildings—sent to architects and owners on request.

Address

The Higgin Mfg. Co.

804 Washington St. Newport, Ky.

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Beware of Contracting for or Using

Infringing Revolving Doors

AS Revolving Doors have recently been installed by parties other than ourselves, the installation and use of which infringe our patents, we have instructed our counsel, Messrs. Redding, Greeley & Austin, No. 38 Park Row, New York City, to bring suits for an injunction and the recovery of all damages and profits, against parties using such Revolving Doors in infringement of our patents.

Architects, contractors and owners are hereby warned against contracting for, installing or using infringing Revolving Doors, and are hereby notified that every installation and use of such infringing Revolving Doors will be followed by vigorous prosecution of the infringers.

The Revolving Door was originated, developed, perfected and brought into universal commercial use by T. Van Kannel and the Van Kannel Revolving Door Company. We are pioneers of the Air Lock Door, and all of our rights will be vigorously defended and protected.

Van Kannel Revolving Door Company

290 (Old No. 524) East 134th St.
New York City

THE CUTLER MAILING SYSTEM



MODEL F

Model F, the latest development of the Mail Chute, substantial, simple, quickly and easily accessible to authorized persons only. Any two of the front panels released by a single turn of a key.

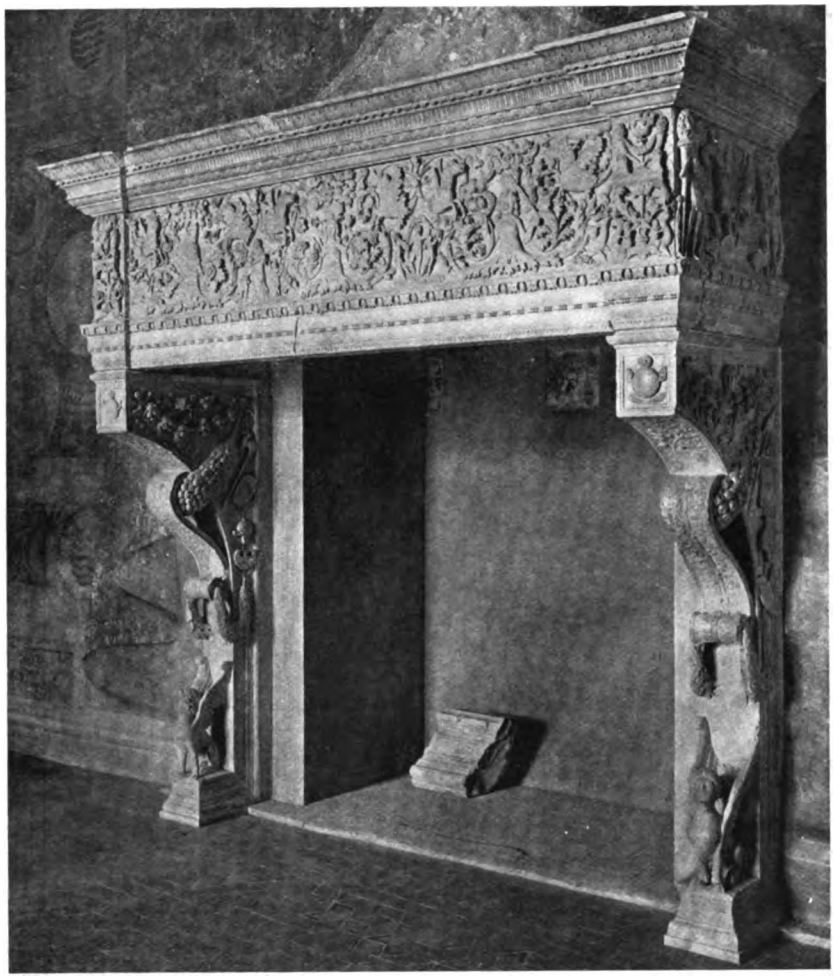
Model C, with its entire front in the form of hinged doors under government lock, is practically a continuation of the mail box to the top of the building. Adapted to buildings of the highest class, where the best possible equipment is required.

Installed under the Cutler System of Mail Chute Patents, which completely cover the Mail Chute in such forms as will meet the present business requirements.

Infringers are being prosecuted.

THE CUTLER MFG. CO.
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THE ERKINS STUDIOS

announce

the opening of a branch in Carrara, Italy, under the personal supervision of a resident American manager. ¶ Special attention will be given to production of Mantels from the famous old world models and from architects' designs. ¶ The manufacture of our own objects and direct importation will assure certain deliveries, and the reputation of The Erkins Studios guarantees the best workmanship. ¶ Photographs and sketches of mantels on application.

The ERKINS STUDIOS : *13 West 15th St., New York*

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The Northwestern Terra Cotta Company

MANUFACTURERS OF HIGHEST GRADE

Chicago Architectural Terra Cotta Illinois

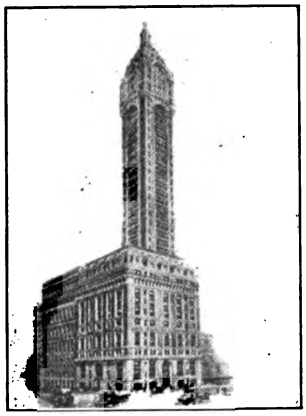
Imperial Asbestos Composition Flooring

IT is a remarkably light, warm and durable material for floors, sanitary base, wainscoting, trim, etc. It can be applied over wood, concrete or cement underflooring. It is absolutely FIREPROOF, impervious to heat, cold and dampness, clean, SANITARY, noiseless and elastic. Positively contains no SAWDUST or WOOD PULP, will not chip, tear loose from its base, nor disintegrate, and when finished, presents a continuous, fine-grained surface which never becomes slippery.

See Sweet's Index, page 223

PITTSBURGH, PA.
CINCINNATI, OHIO
VANCOUVER, B. C.
NEW ORLEANS, LA

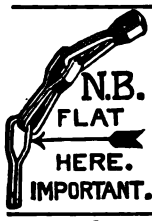
THOMPSON & KIRKPATRICK, INC., MFRS.
1021 to 1023 CALLOWHILL STREET, PHILADELPHIA, PA.



THE material which has made the Giant Metal Sash Chain famous for strength and durability is manufactured from a secret mixture known only to the Smith & Egge Mfg. Co. Capacity 20 miles a day. In use over 30 years.

Throughout the Singer Building

SMITH & EGGE MFG. CO., Bridgeport, Conn.



"Monarch" Sash Chain contains most Tin

High in Tin Means Highest Quality in all respects

BRIDGEPORT CHAIN COMPANY, Bridgeport, Conn.

SAMSON SPOT CORD can be distinguished by our Trade-Mark, the Colored Spot. It has been proved by long experience to be the most economical device for hanging windows.

SAMSON CORDAGE WORKS - BOSTON, MASS.

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OVER one hundred HAHL PNEUMATIC CLOCKS tell the **correct** time in Marshall Field & Co.'s palatial retail store. One Master Clock controls them all.



Motive Power costs **nothing**

Simple and Reliable

Hahl Automatic Clock Company

1114-16 Schiller Bldg. Chicago

Turner-Reich Prismatic BINOCULAR



A PERFECT FIELD GLASS

IT'S ALL IN THE LENS

¶ It supersedes the old fashioned field glass for every purpose, and is so much superior in magnifying power, angle of view and quality of the image, with the additional advantages of compactness and light weight, that comparison is out of the question.

Sold by all dealers. Catalogue on request

GUNDLACH-MANHATTAN OPTICAL COMPANY

809 Clinton Ave., So. Rochester, N. Y.

The "Onliwon"

Toilet Paper Cabinet



Delivers units of two sheets uniformly, invariably and *silently*, eliminating the waste and litter incident to the unprotected roll or cabinet. Nickel plated steel *locked* cabinets for hotels or other public places. Handsomely ornamental metal for residential use.

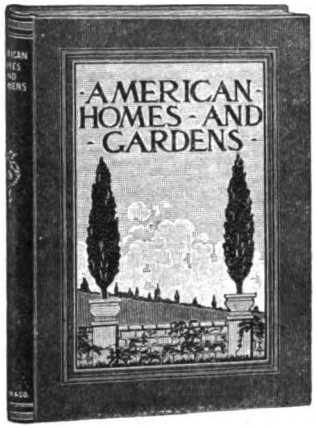
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A. P. W. Paper Co., Albany, N. Y.

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What a comfort to *know* instead of to *assume* that you are right

American Homes and Gardens



gives its readers the experience of experts in solving the most difficult HOME PROBLEMS. It is a thoroughly practical magazine having the word "Home" for its keynote.

How to Build the Home

¶ Floor plans and details of construction of houses of moderate cost as well as more pretentious mansions are a feature of each issue.

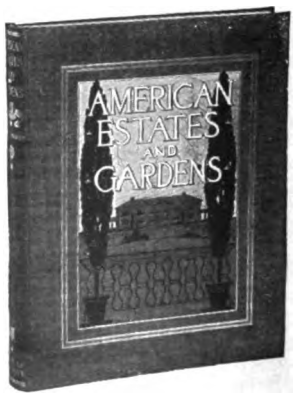
How to Decorate the Home

¶ The most experienced decorators in the country describe how the best and most artistic results are attained from the point of expenditure, and the more important one of satisfaction.

How to Plan and Lay Out the Garden

¶ The frame of the House-picture is the garden, and success in its treatment means that each tree and shrub is correctly placed as well as properly grown, hence this department will be found most helpful.

Outdoor Life and Amusements, Articles on House Industries, every phase of country life is authoritatively discussed from month to month in its pages. ¶ "American Homes and Gardens" is conceded to be the handsomest magazine published in America. Its illustrations are largely reproductions of original photographs printed in duo-tone. Its beautiful cover printed in colors changes each month, and is always a work of art. ¶ Subscription price, $3 per year. ¶ If we receive your order for a year's subscription now we will send you the November and December, 1907, numbers free; in other words, fourteen months for price of a year's subscription.



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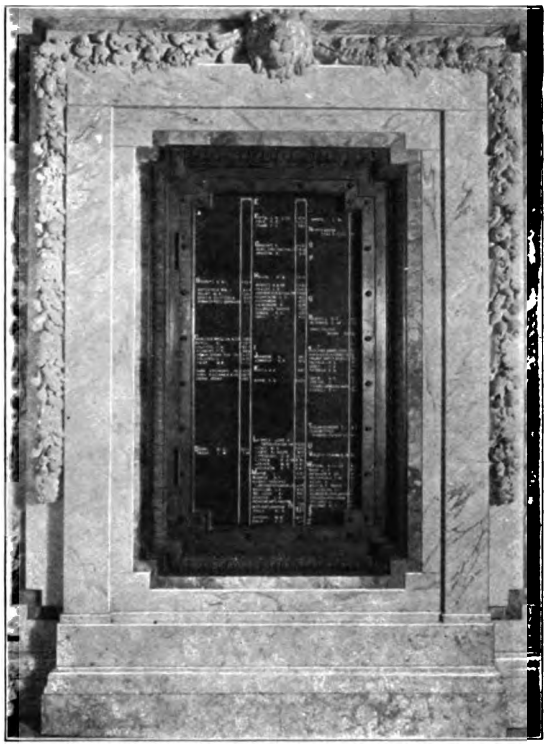
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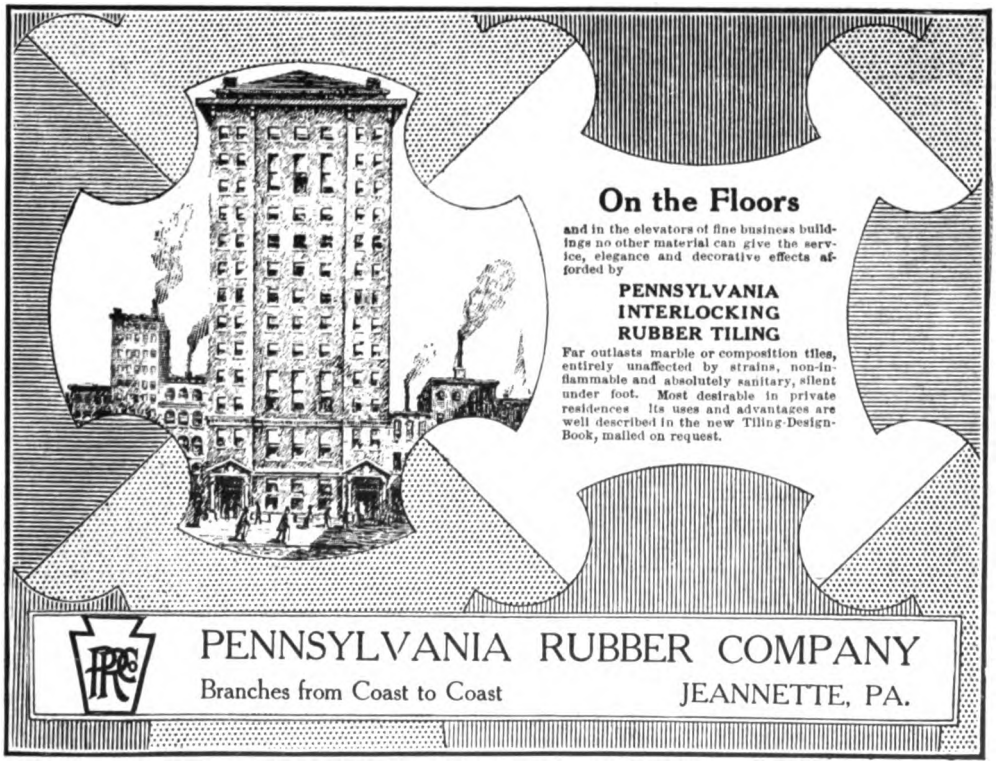
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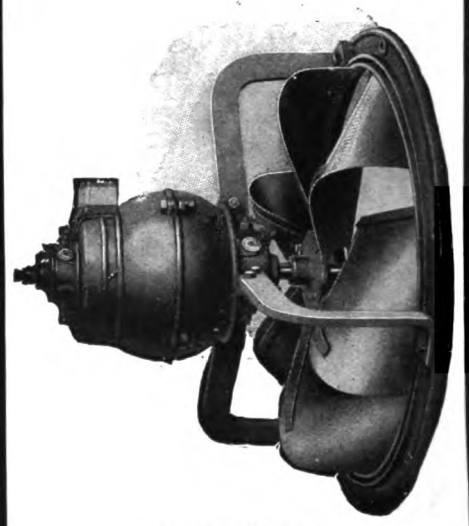
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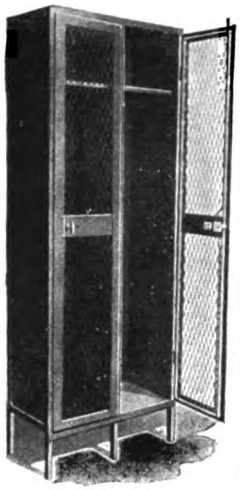
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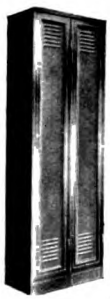
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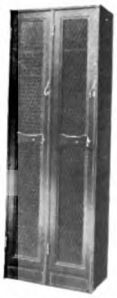
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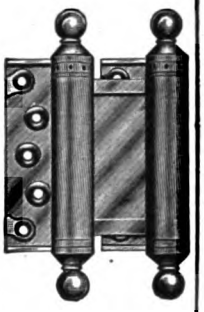
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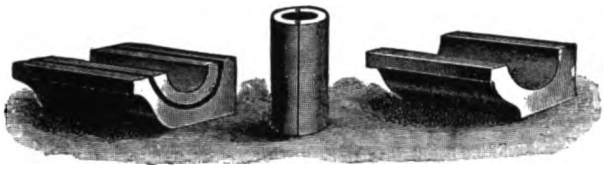
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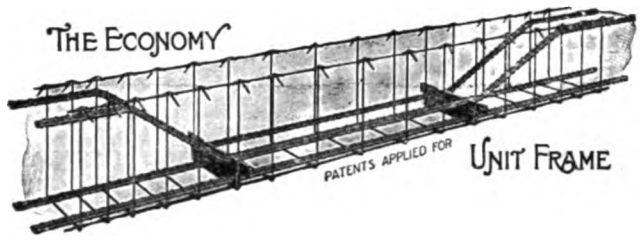
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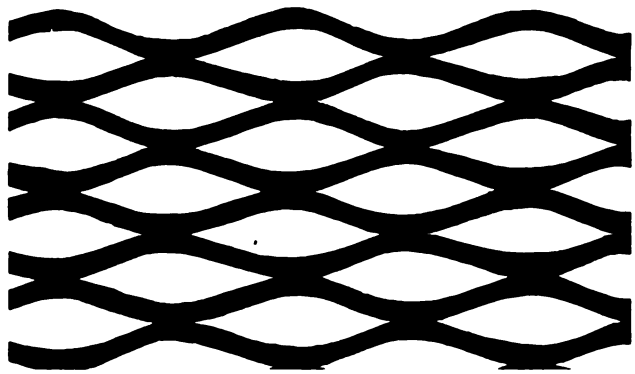
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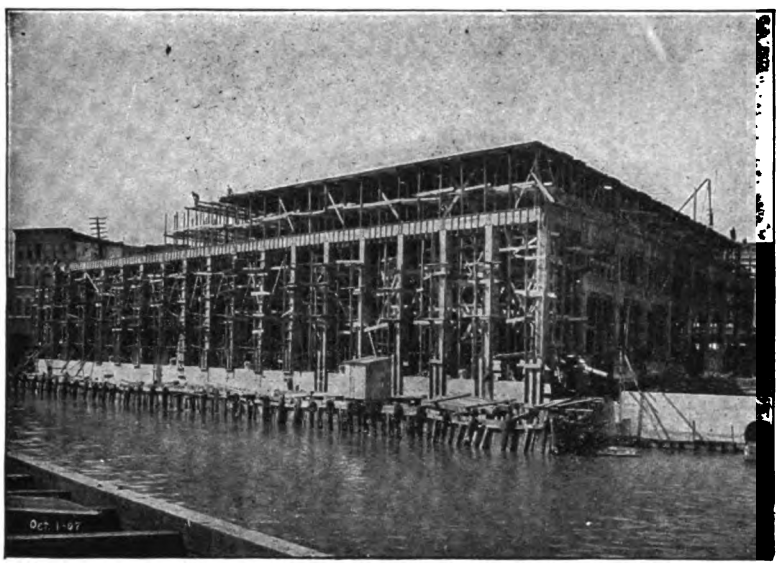
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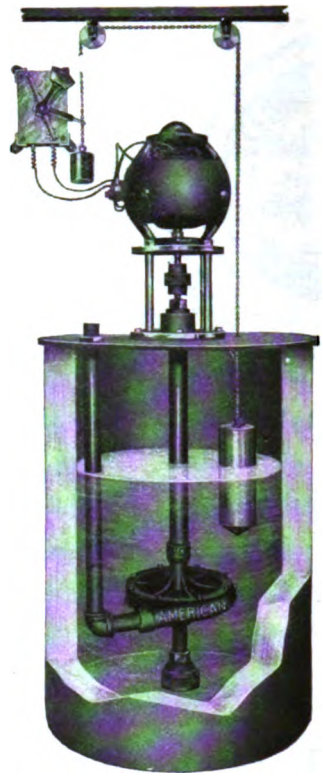


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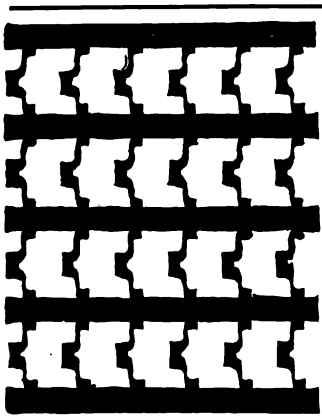
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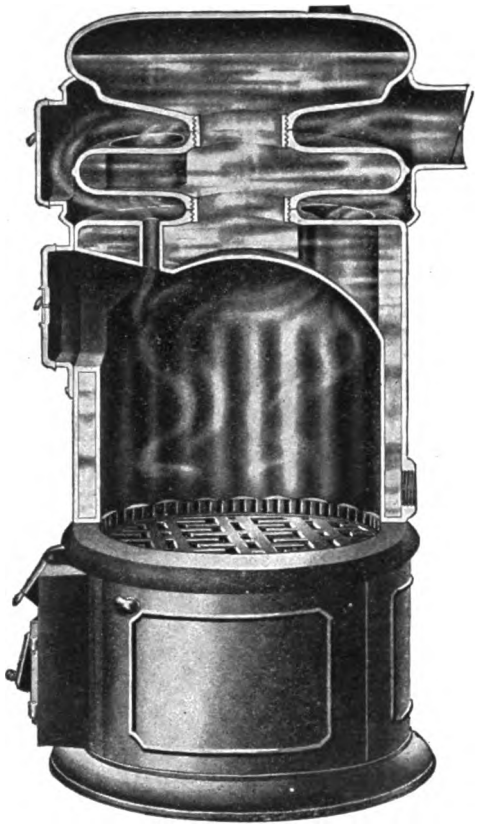
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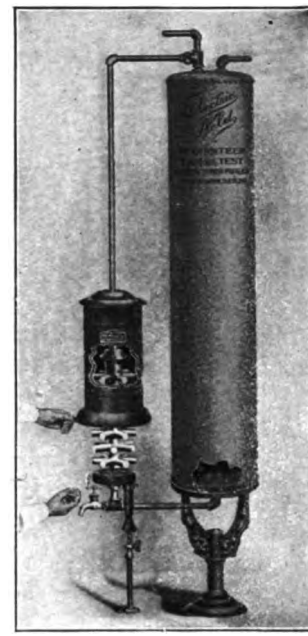
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A few minutes spent with the nearest enterprising plumber will satisfy you of this.

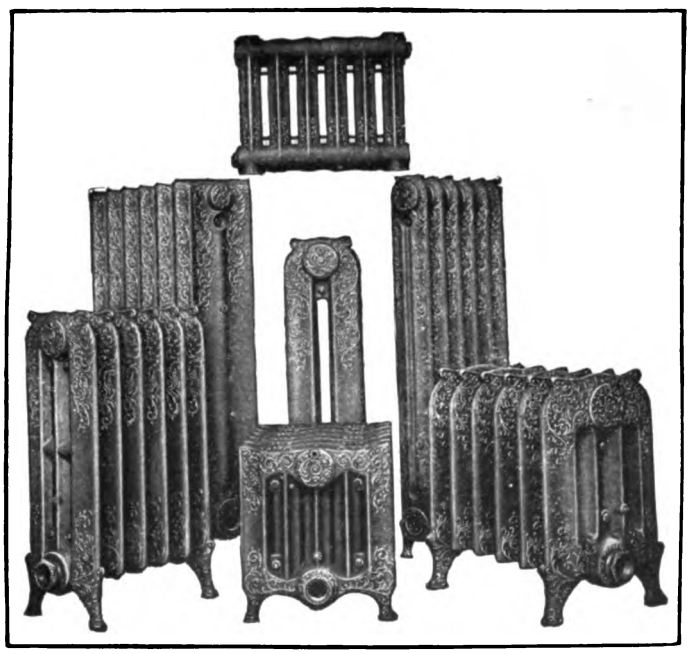
He'll show you the rush of hot water, the small gas consumption, the safety, simplicity, durability.

There's a great field for the Electric-Weld No. 10, wherever a heater **independent** of the boiler is desired, especially when low first cost is an object.

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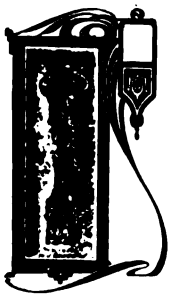
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The Only Right Way to dispose of Perishable Refuse. See "Sweet's," Vol. 2

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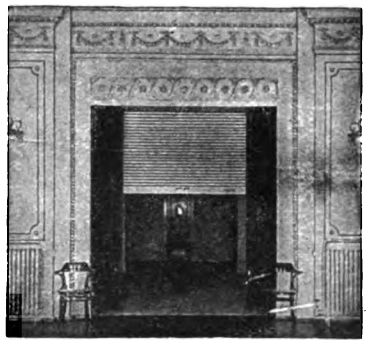
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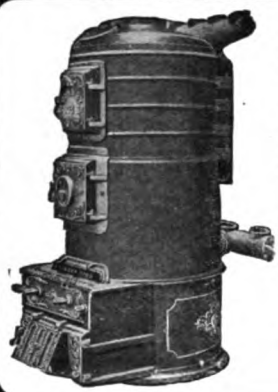
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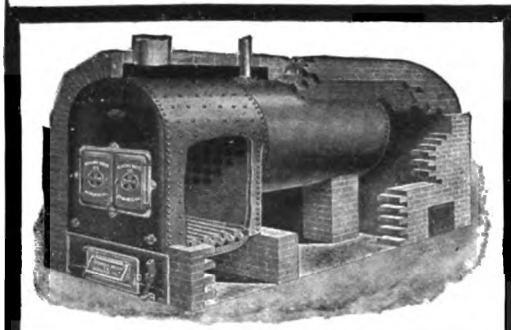
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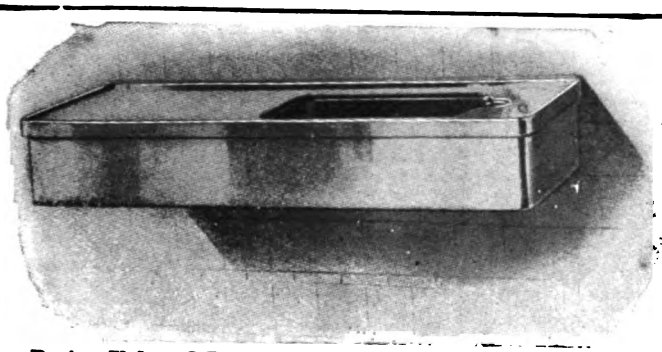
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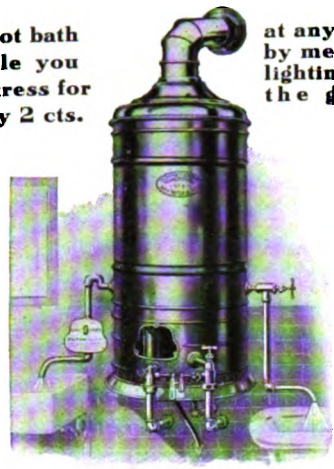
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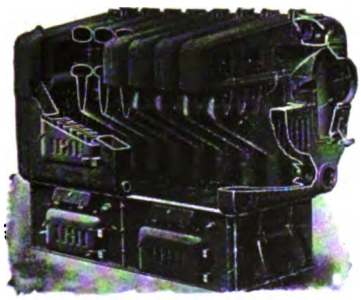
A hot bath while you undress for only 2 cts.

at any time by merely lighting the gas



A Humphrey Instantaneous Water Heater in a bath room makes hot water always ready. Turn on and light the gas—it pours forth and runs as long as the gas and water are left on. No expense when not drawing hot water. Handsome, durable, inexpensive and economical. No dirt, no labor, no repairs. Always ready. Price $23.50 to $140. Tell us your needs; we will gladly recommend what will best supply them. Handsome catalog No. 9 is free for the asking.

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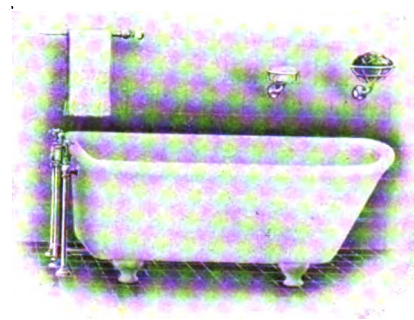


Plate 4-K

An "Ideal" Solid Porcelain Bathtub of light construction has become a necessity for installation in modern sanitary home bathrooms.

Our plate 4-K "French" pattern "Ideal" Solid Porcelain Bathtub is the most desirable fixture for your bathroom. Made entirely of clay materials, fired to a hardness with the strength of rock, with no metal to rust or corrode, no danger of peeling, as the glaze is an integral part of the fixture. Nothing can discolor the surface, as it is not affected by the action of acids from soaps or bath powders, and needs no cleaning preparation to keep its pure, white surface free from dirt.

Thousands are already giving genuine satisfaction in homes, apartments and hotels throughout the world.

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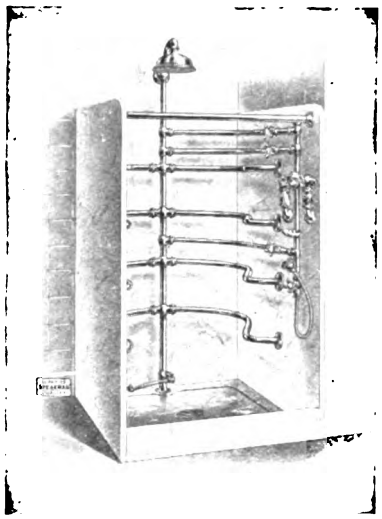


Figure 1016. List $200
Marble Stall not included

SEE
PAGE
85
in
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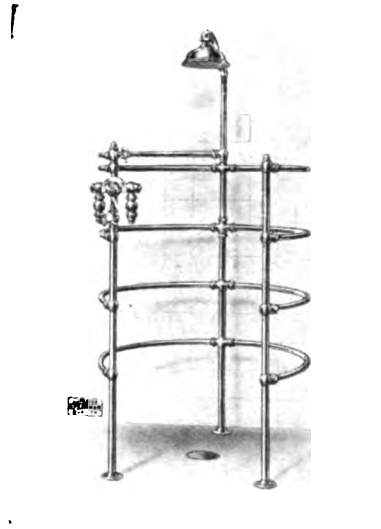


Figure 1018. List $105

ECONOMY in the use of water is quite an item where a number of showers are to be installed in an institution. The shortest space of time in which a number of persons can bathe is another item. Speakman's Showers equipped with our Non-Scalding Regulating Valve are the best for institutions where these conditions are important.

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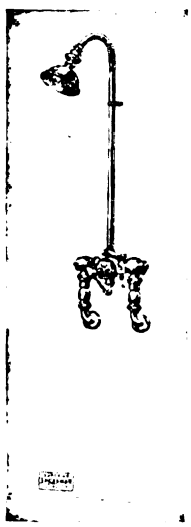


Figure 1000
List $25.50

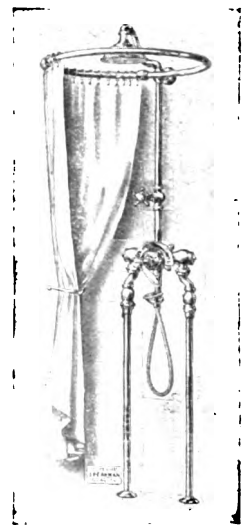


Figure 1006
List $48

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It is quite natural for us to tell you about the high quality of

"PARAGON" Plumbers' Brass Work

BUT

Some Architects and Buyers prefer to know what the users of "PARAGON" Goods think of the goods

Read what the management of the Piedmont Hotel, of Atlanta, Ga., say:



ONE OF AMERICA'S MOST MAGNIFICENT AND BEST CONDUCTED HOTELS

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150 BATHS

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HOTEL CANTERBURY BOSTON MASS.

Atlanta, Ga., June 17, 1908

The Sanitary Company,
Cleveland, Ohio.

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Yours respectfully,

Manager, Piedmont Hotel.

All Plumbers' Brass Goods installed in the above hotel, including faucets, showers, supplies, traps and special lavatories, were specified "PARAGON," and have been in constant use for over six years.

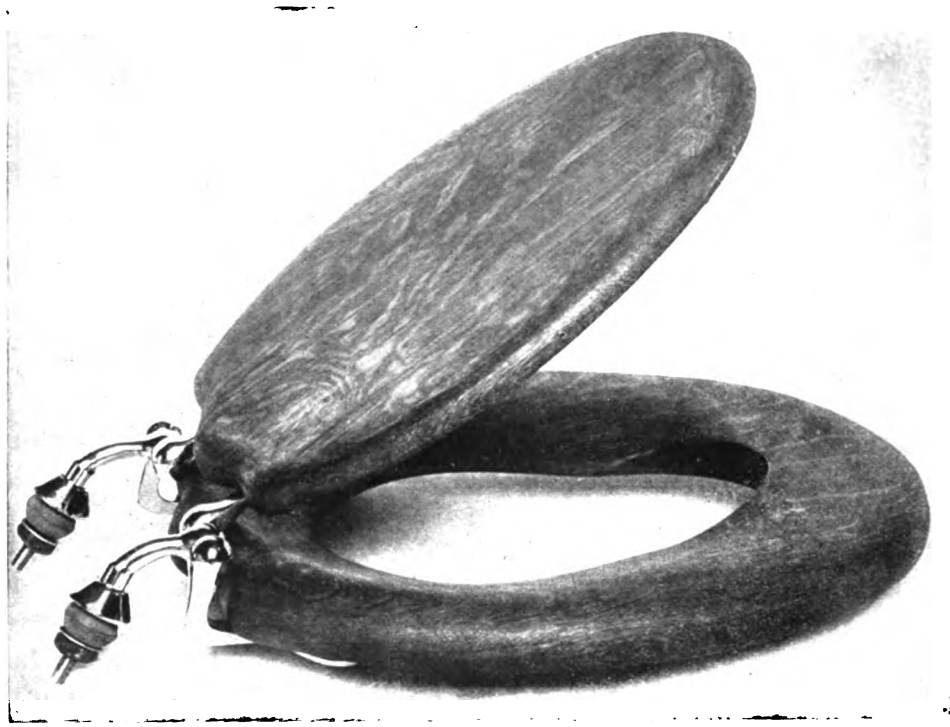
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GUARANTEED FOR FIVE YEARS
not to come apart at joints or split



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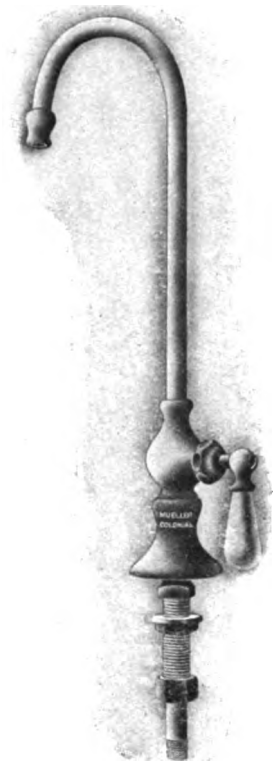
Make your specifications clear as to quality and finish desired. It's for the best interests of all concerned. The exact terms may be obtained from our Catalogue "C."

Practically all first class plumbers are posted on the virtues of "Never-Split" Seats, and will not be likely to substitute an inferior make—but it is of importance that desired price seat be clearly understood.

For specification requirements see page 8 of our Catalogue "C"

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D-10901

Mueller Colonial Plumbing Brass Goods

(Patent applied for)

Exterior grace, sightliness, adaptability of harmonious merging into the refined and artistic furnishings of the modern home have long been subordinated in plumbing brass goods to mechanical necessities.

The mechanical necessities cannot be subordinated to artistic treatment alone, but they can be blended to produce a dual instead of a single purpose.

It is this result we have produced in Mueller Colonial Brass Goods—exterior treatment giving distinct artistic individuality which appeals to all persons of exacting good taste.

Specimens of different lines are shown on pages 1269-1273 of Sweet's Index, 1907-08 edition.
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NEW YORK, N. Y., U. S. A.
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CHATTANOOGA, TENN.

"Southern Beauty" Lavatories



REGISTERED TRADE MARK

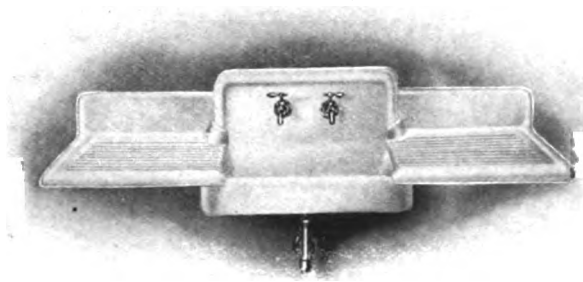


PLATE D-94 [Patent applied for]

One Piece Roll Rim and Apron Kitchen Sinks, etc.

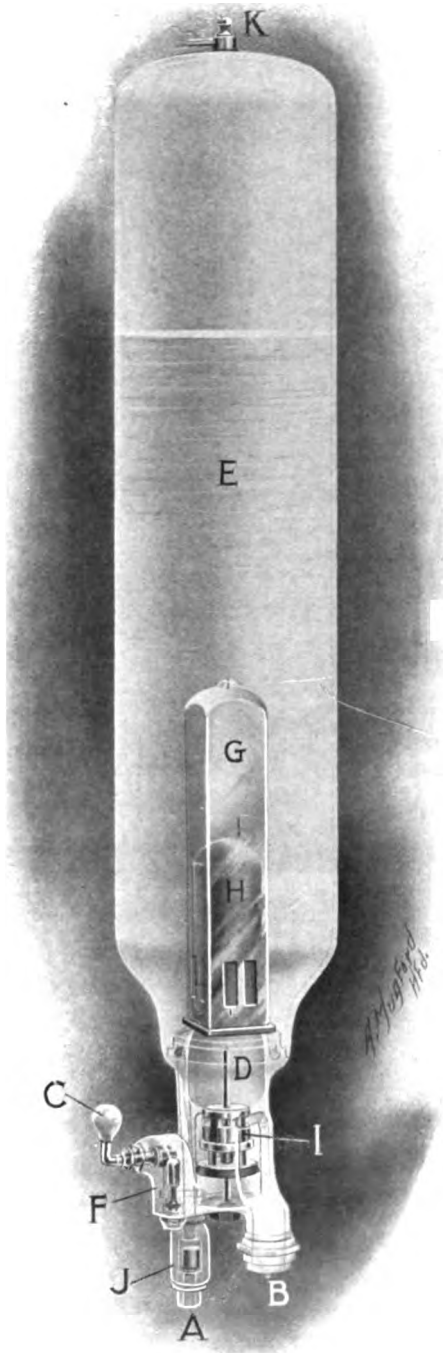
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THE UNIQUE
Pressure Tank

in which is accumulated an excess of air pressure up to a normal point, which gives a strong positive flush from start to finish.

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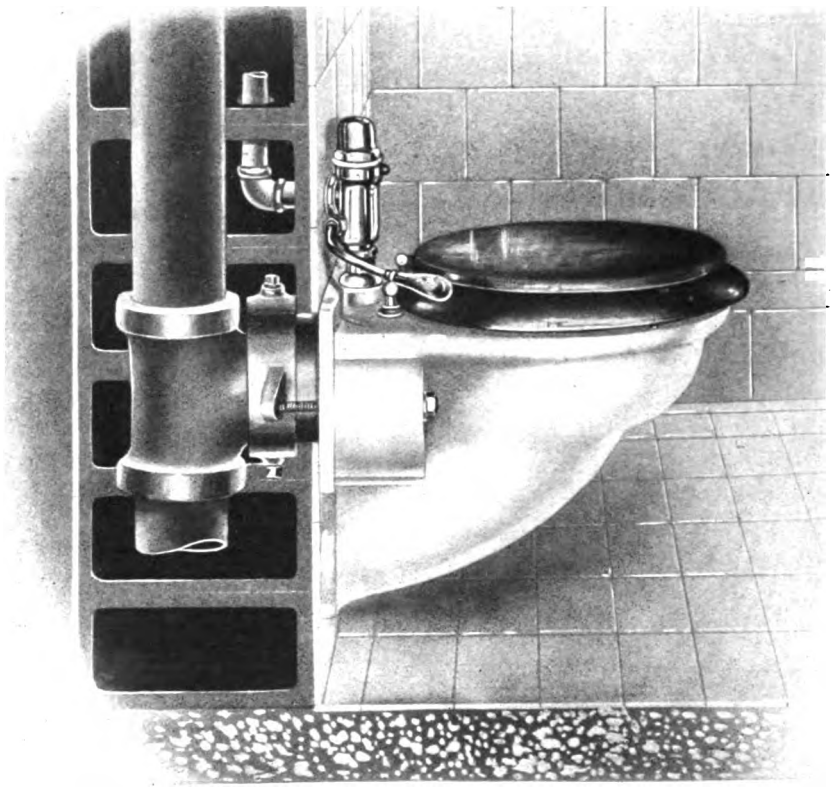
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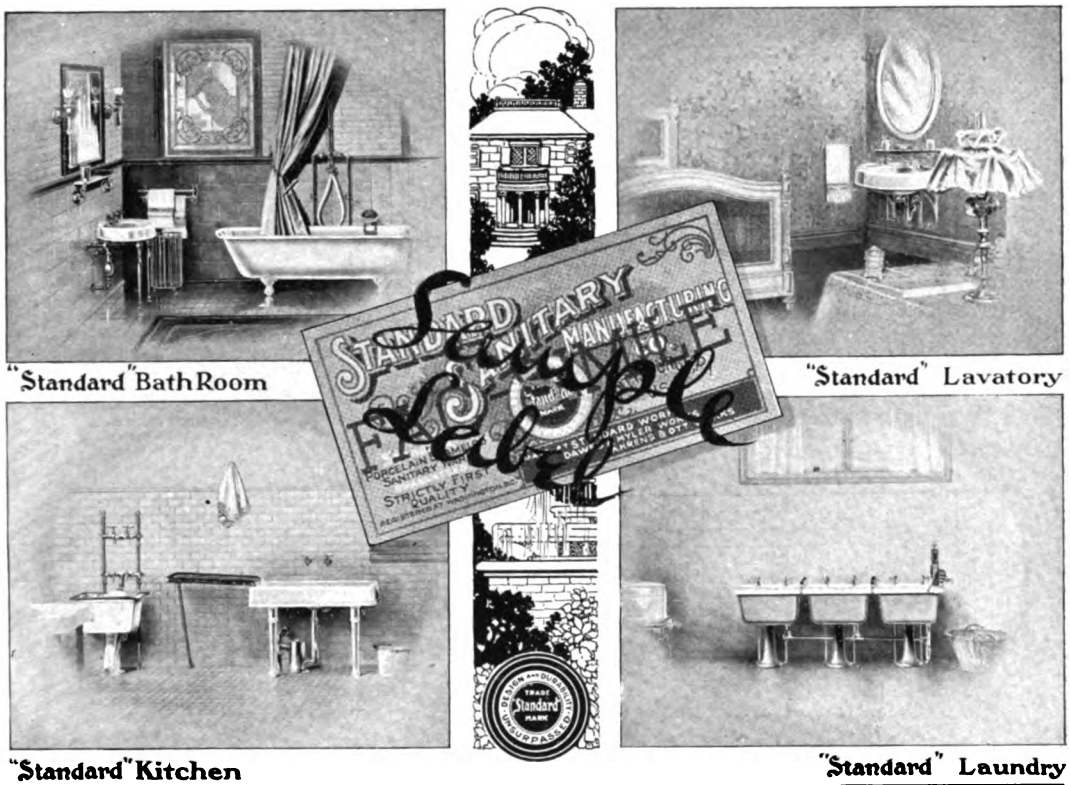
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See SWEET'S INDEX, pages 620, 621

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By Equipping with Genuine Standard Green and Gold Label Plumbing Fixtures

the health of your client's household is safeguarded for all time and his problem of home sanitation is solved for good.

No other plumbing equipment provides the same thorough satisfaction in sanitation, service and actual use as genuine "Standard" "Green and Gold" Label Fixtures. No matter how much or how little your client wishes to invest in his sanitary fixtures, there is a genuine "Standard" equipment for him at that price. The genuine "Standard" equipment is the most sanitary, the most economical, and the most beautiful of all plumbing equipment made for household use.

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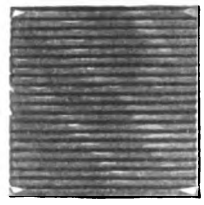
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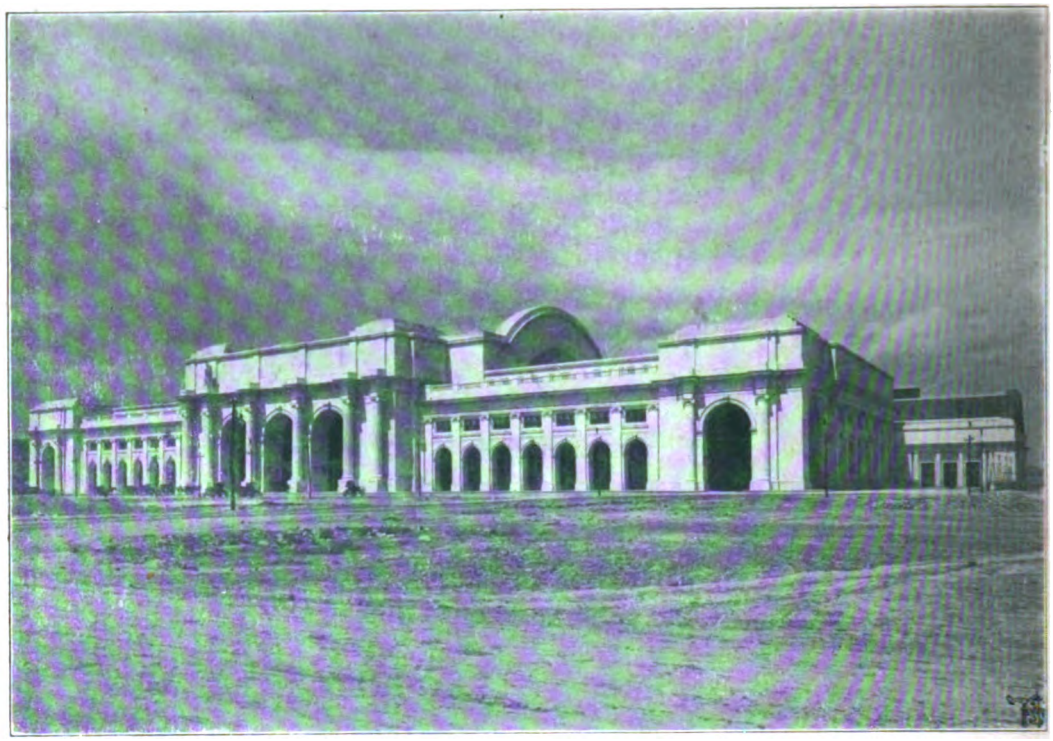
OCTOBER

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See Sweet's Index, 1907-08 edition, pages 108 and 110.

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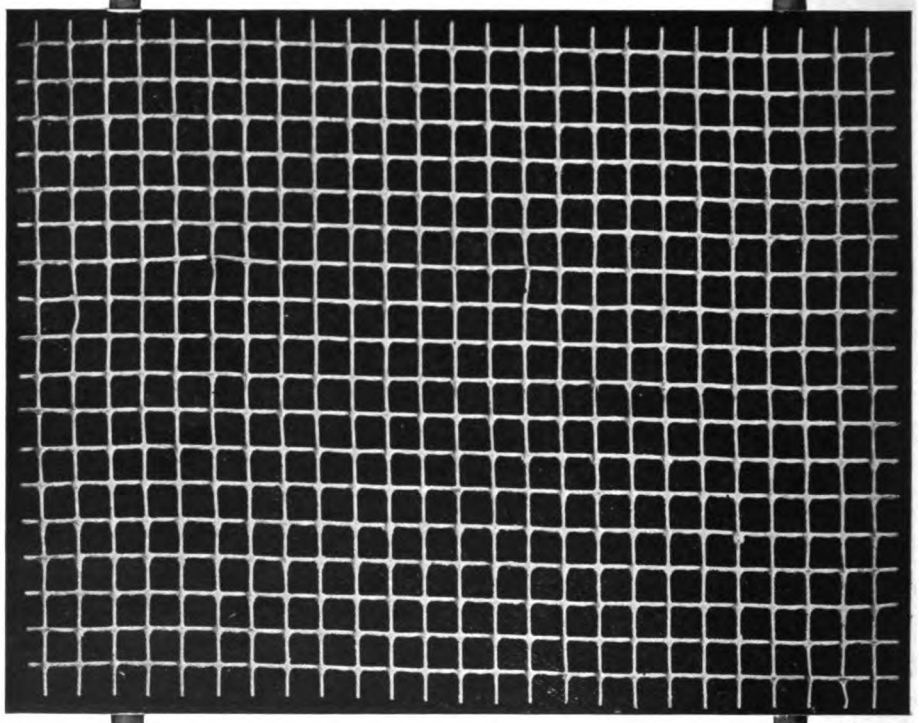
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FLOORS



ROOFS



The above cut displays the condition of Wire Lath galvanized after Weaving, when removed from a part of the old Fifth Avenue Hotel Building, 23d Street and Fifth Avenue, New York City. This lath had been imbedded in mortar for upwards of half a century, and is in every essential as perfect today as when first used.

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SEATTLE: L. A. Norris, 909 Alaska Building
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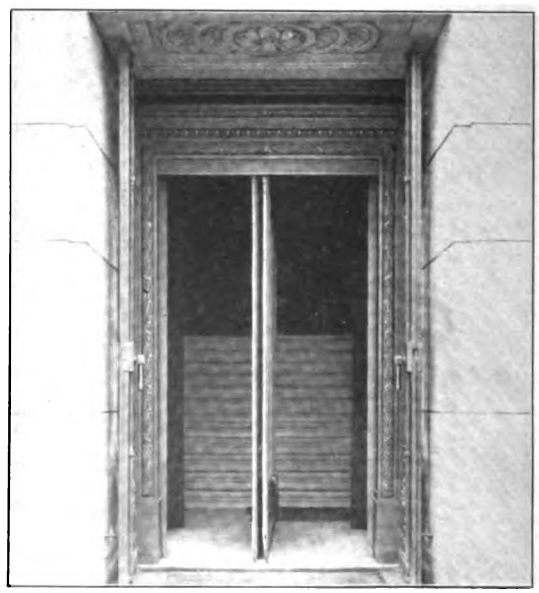
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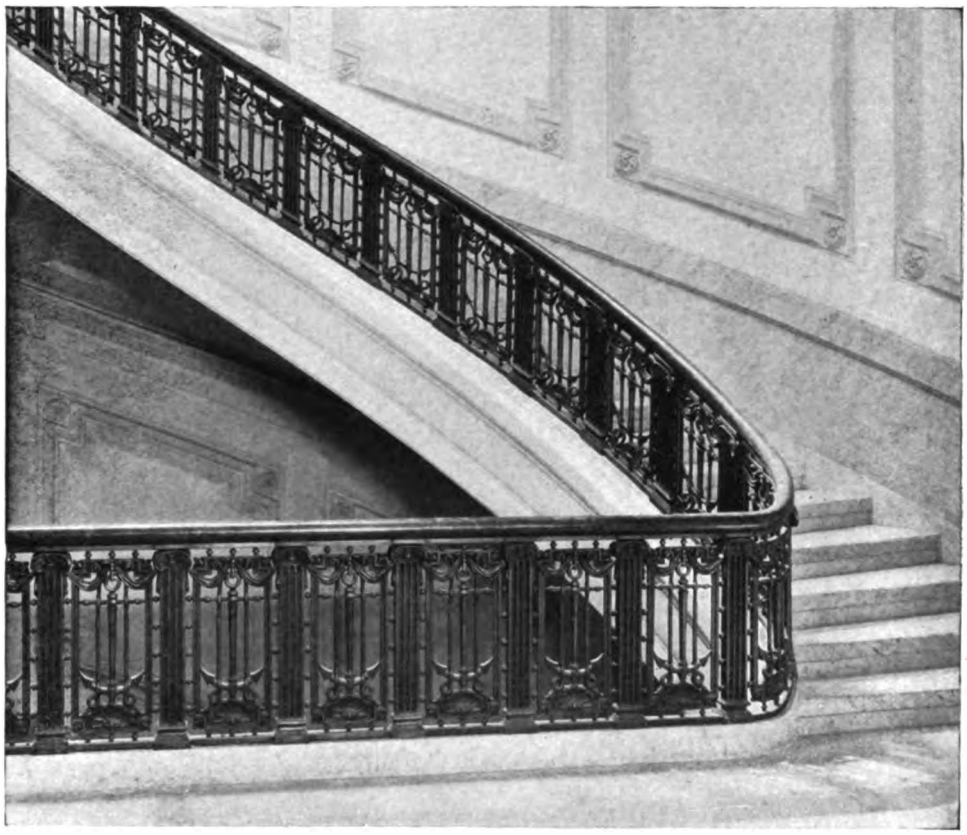
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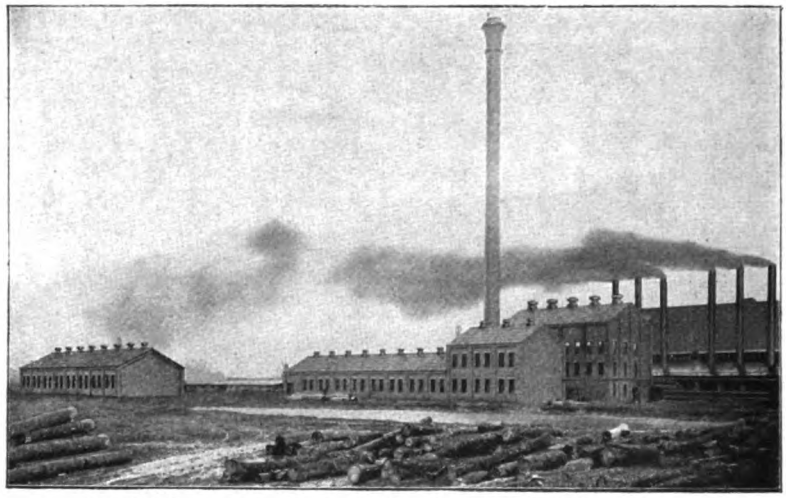
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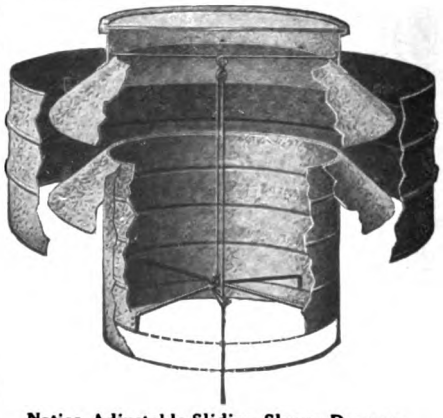
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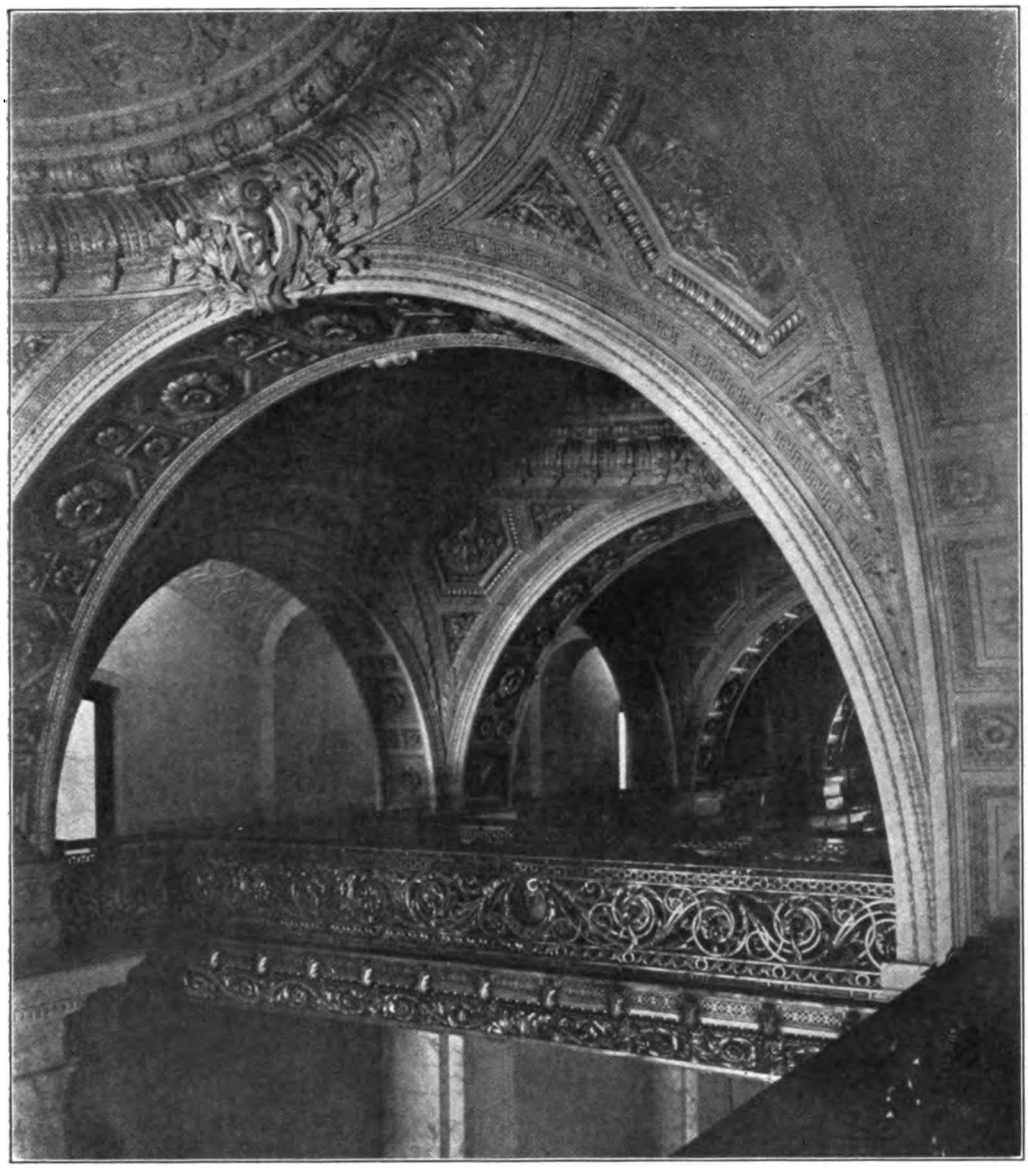
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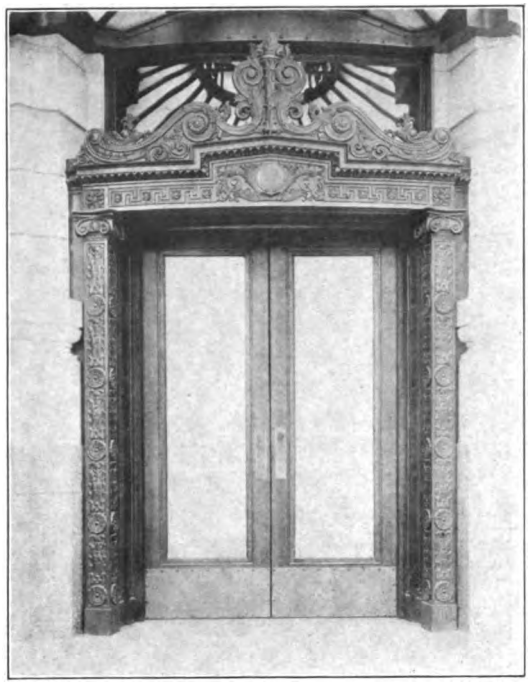
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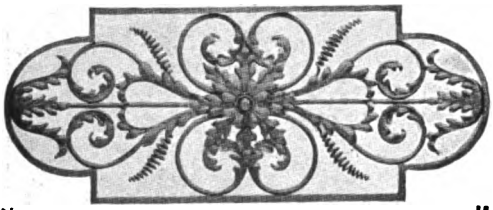
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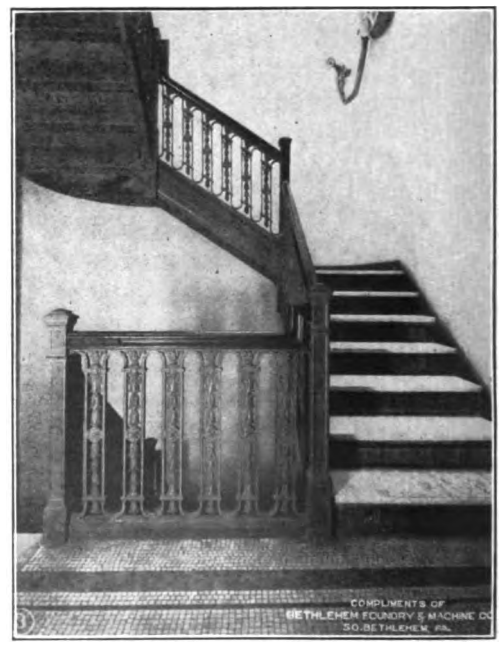
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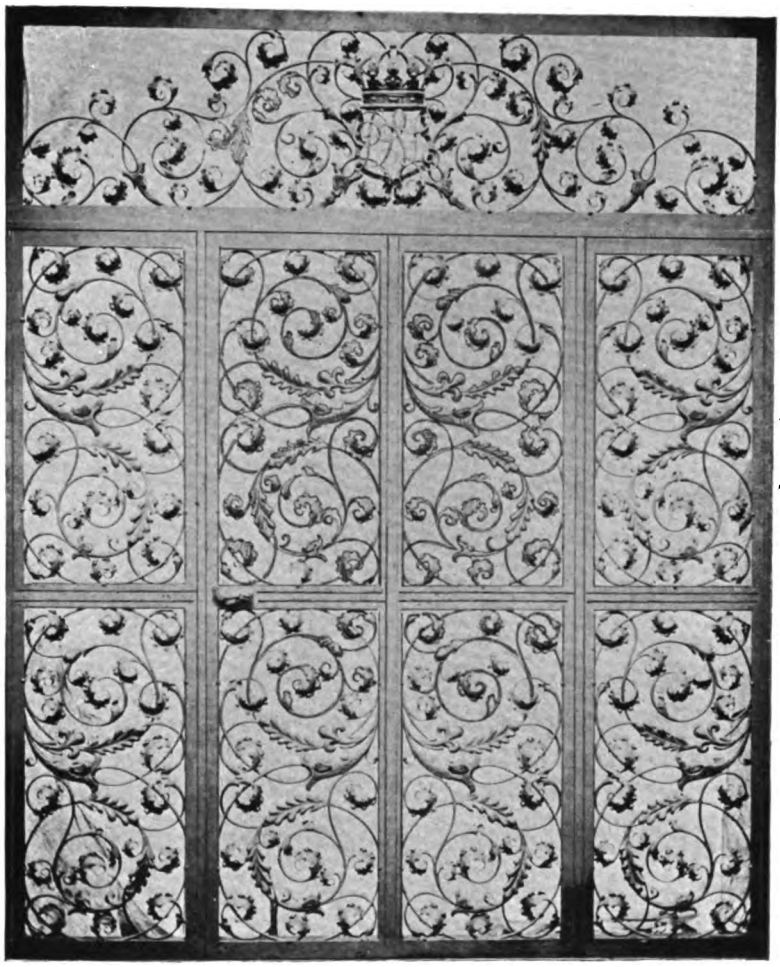
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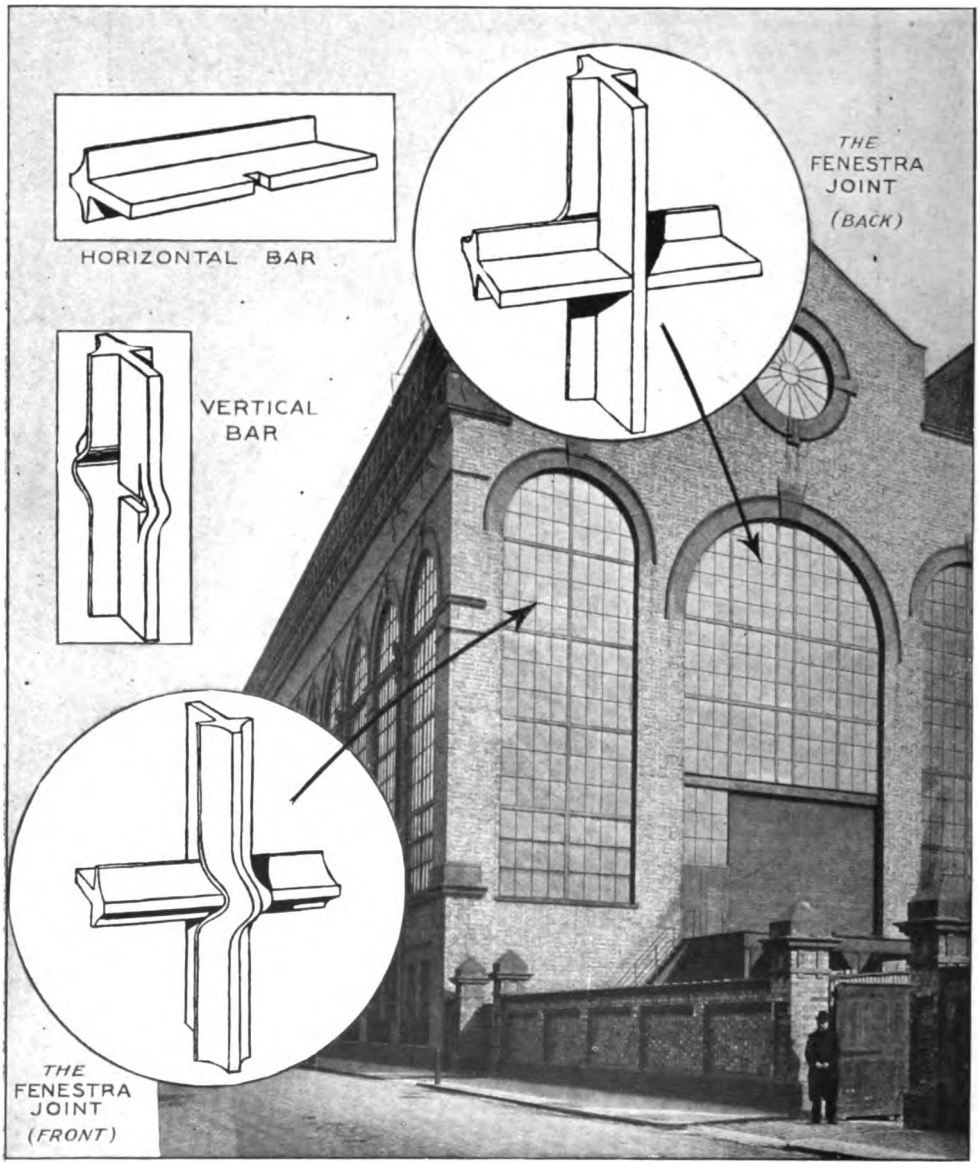
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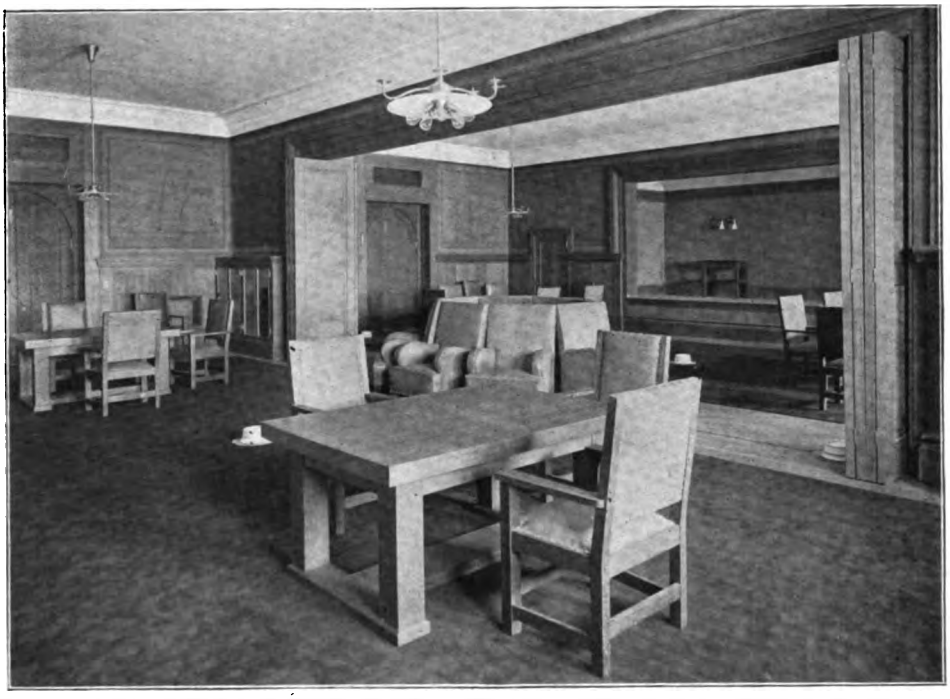
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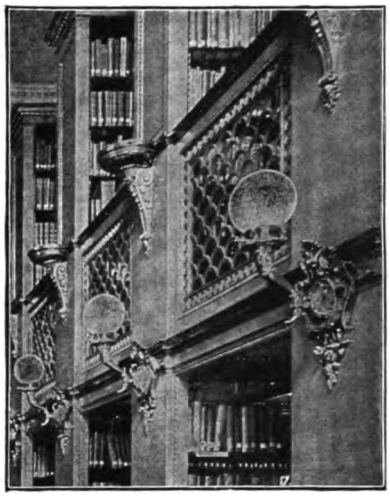
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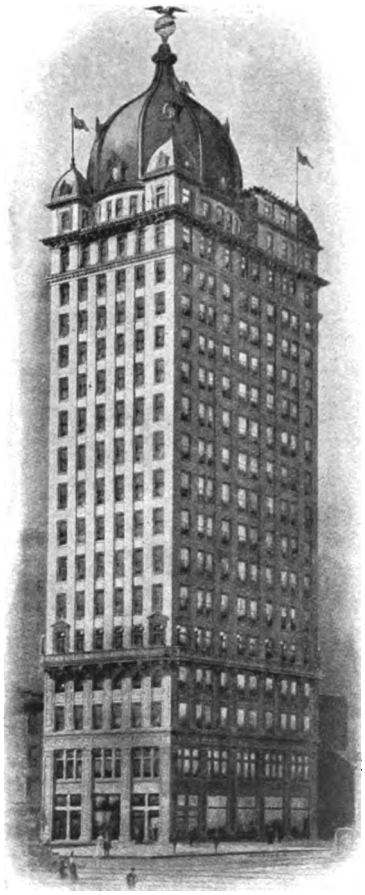
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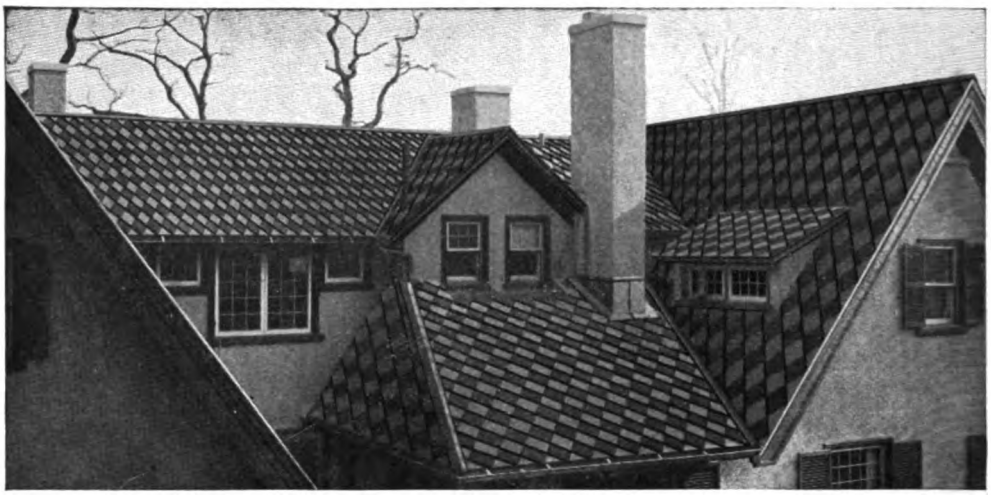


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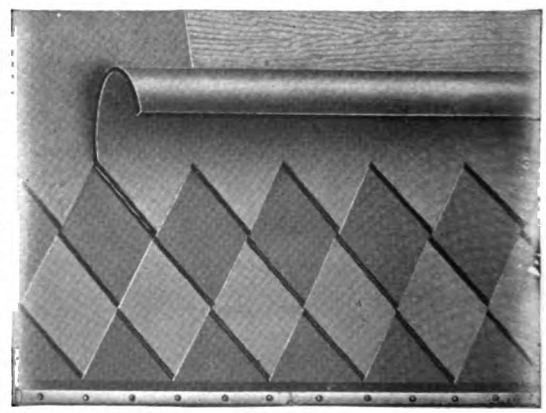
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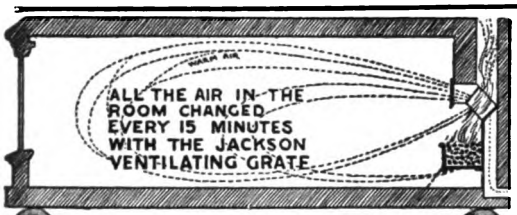
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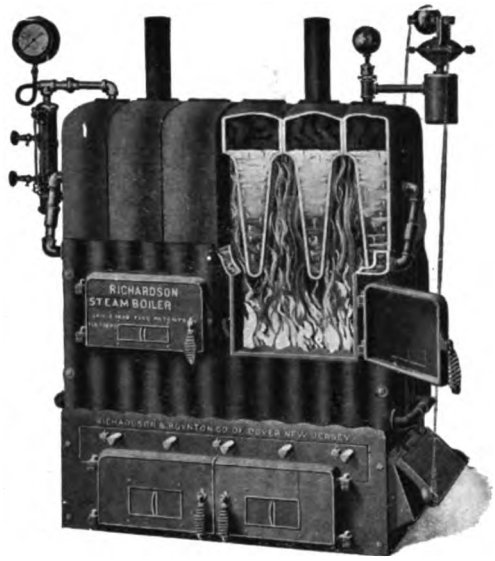
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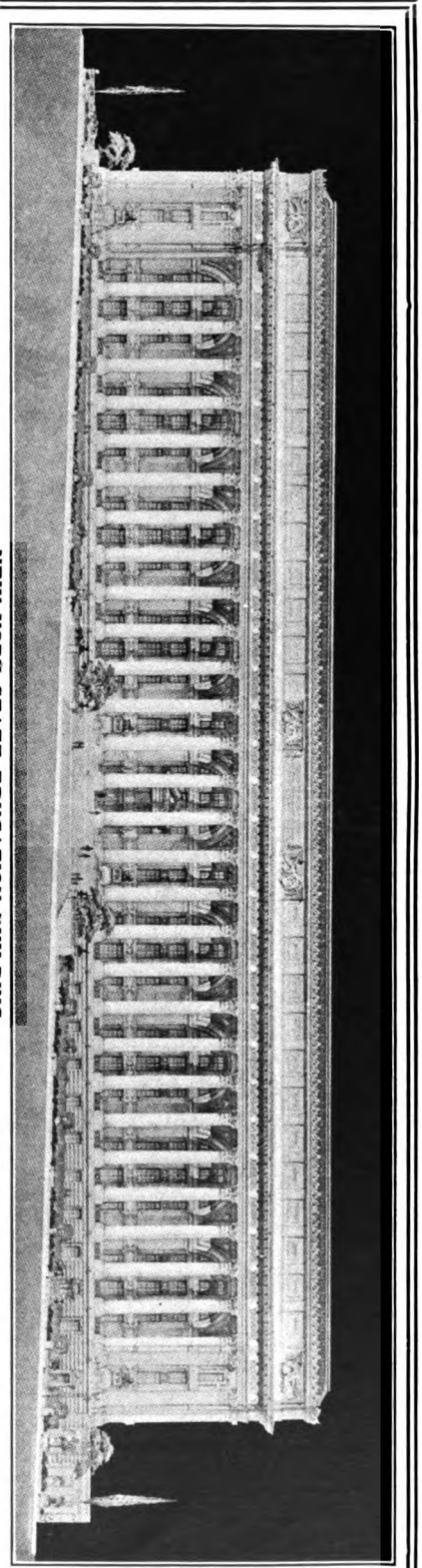
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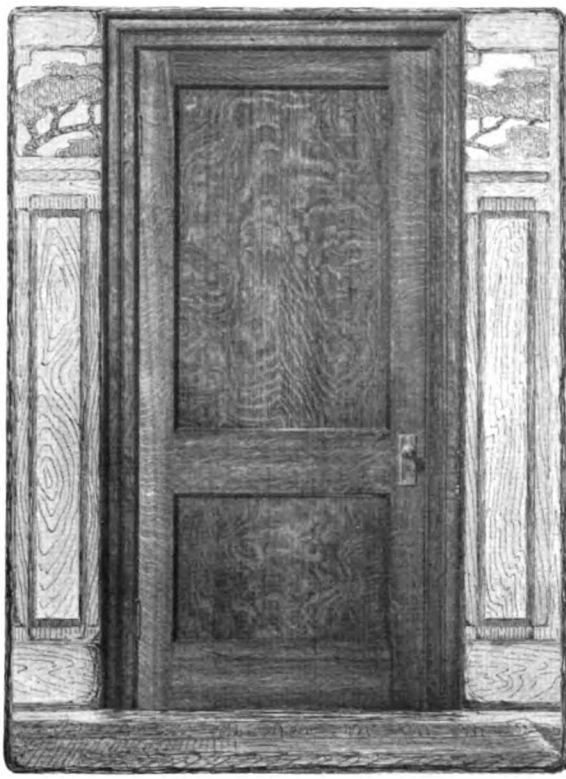
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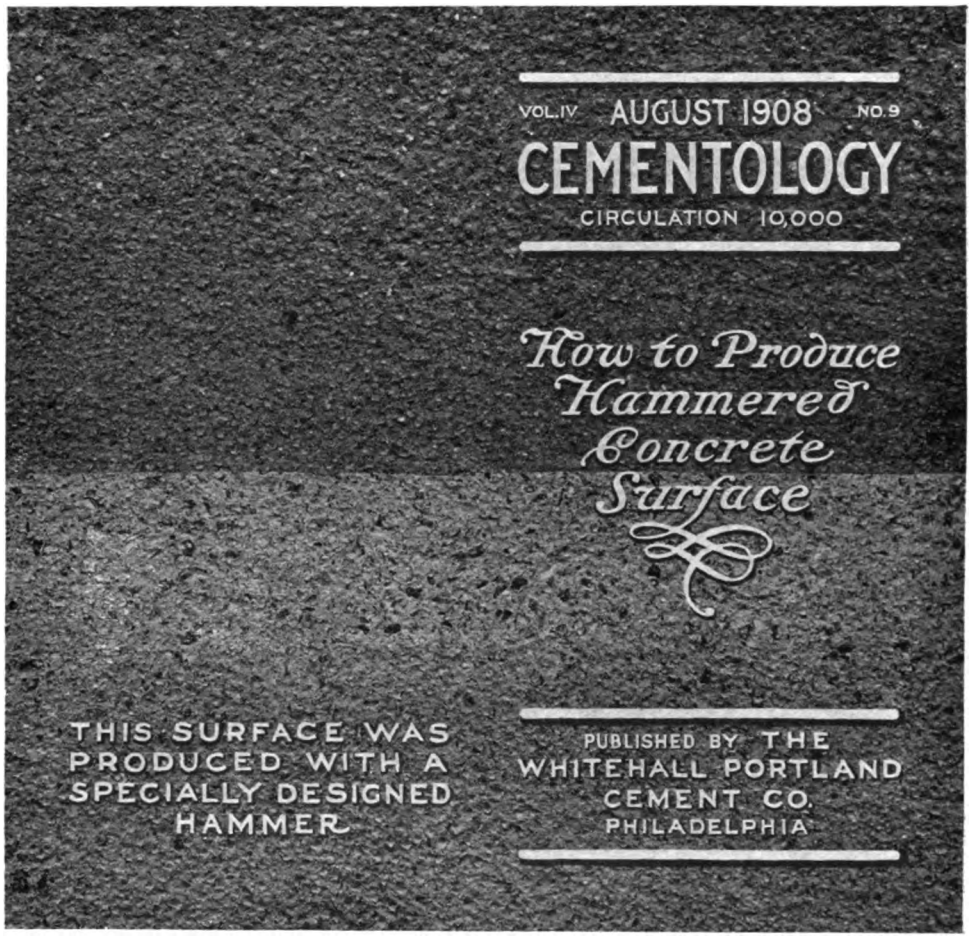
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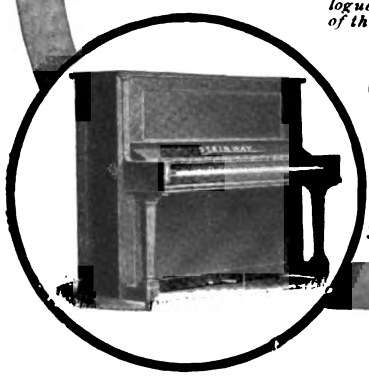
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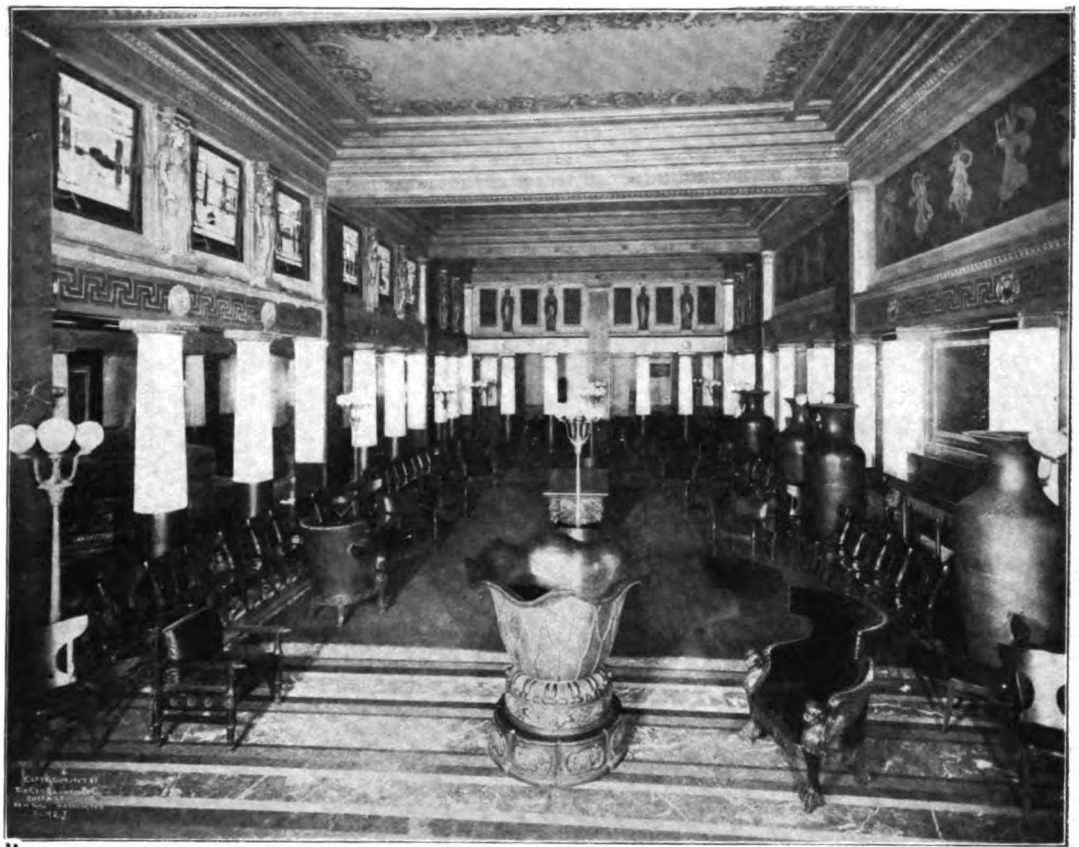
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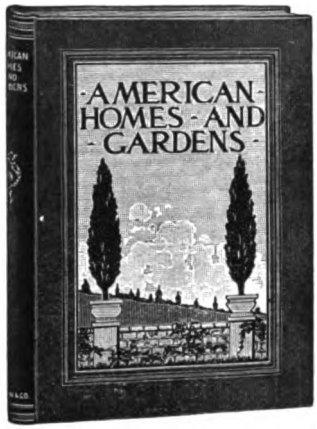
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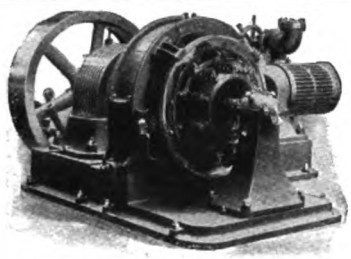
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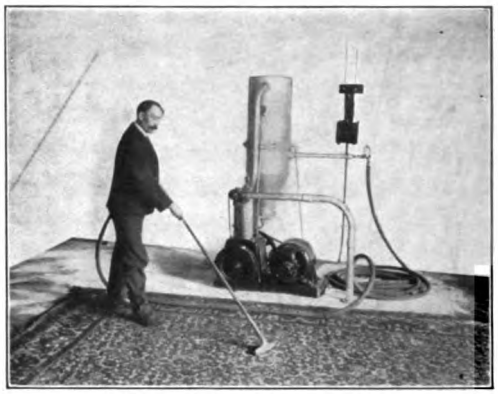


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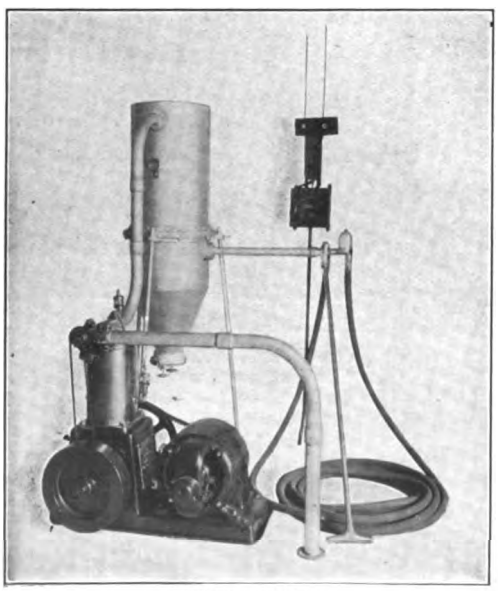
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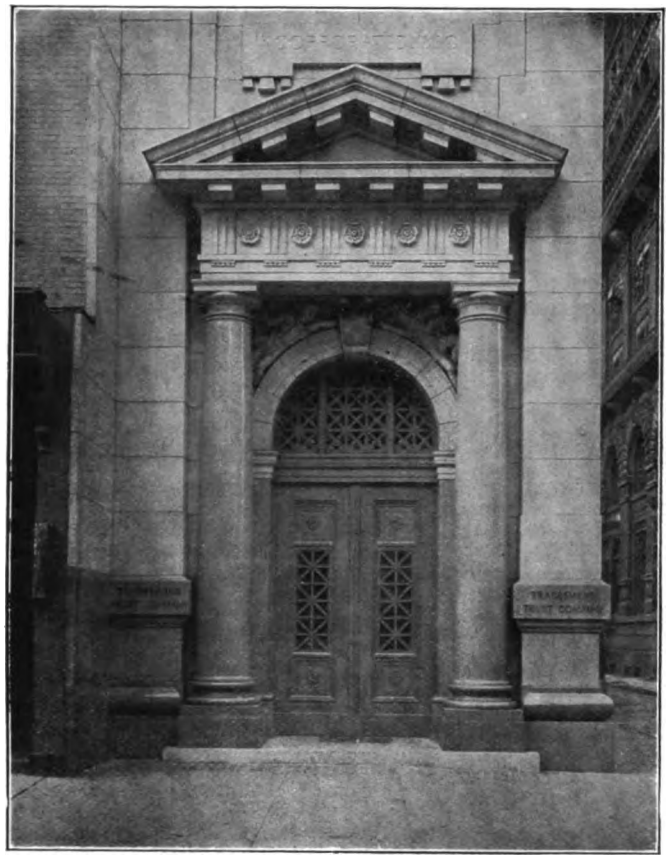
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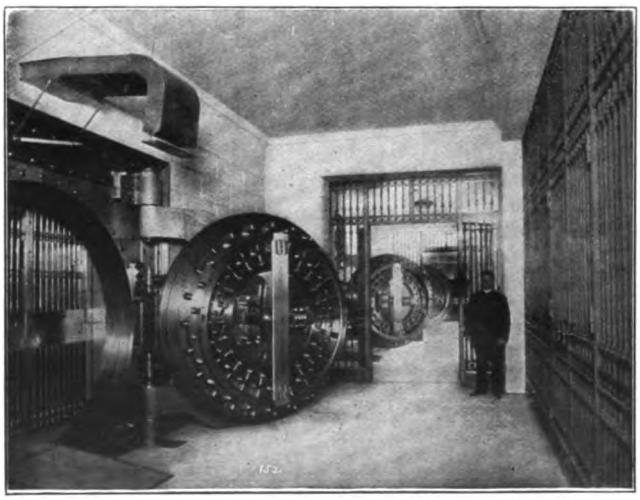
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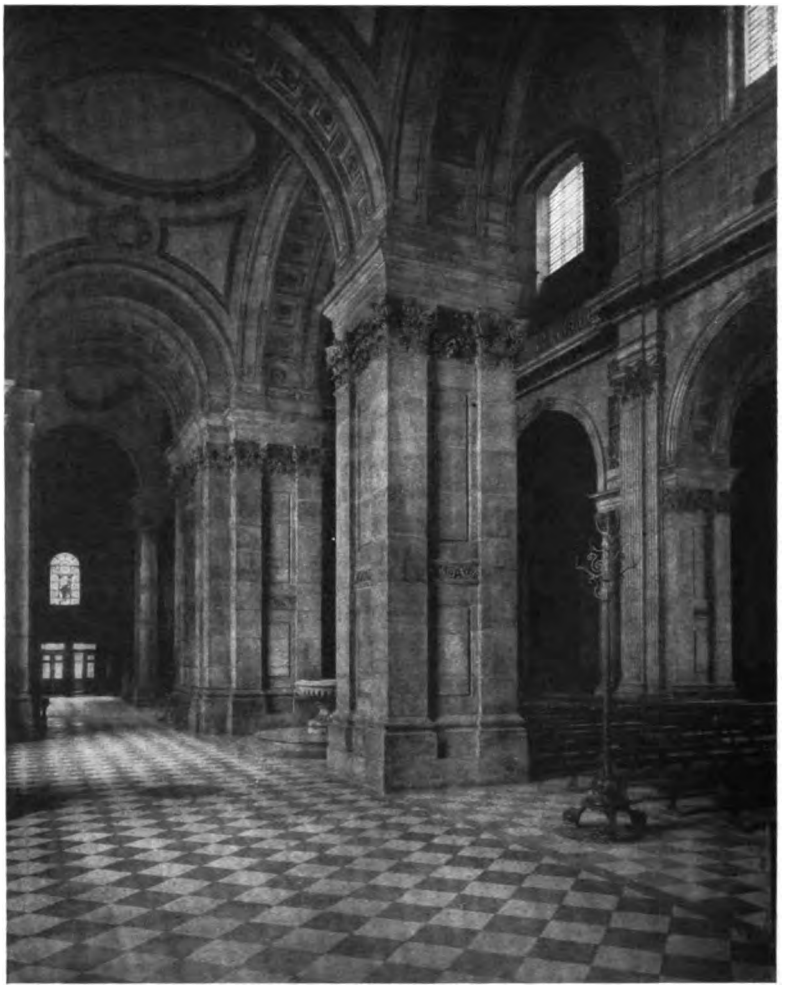
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THE ARCHITECTURAL RECORD

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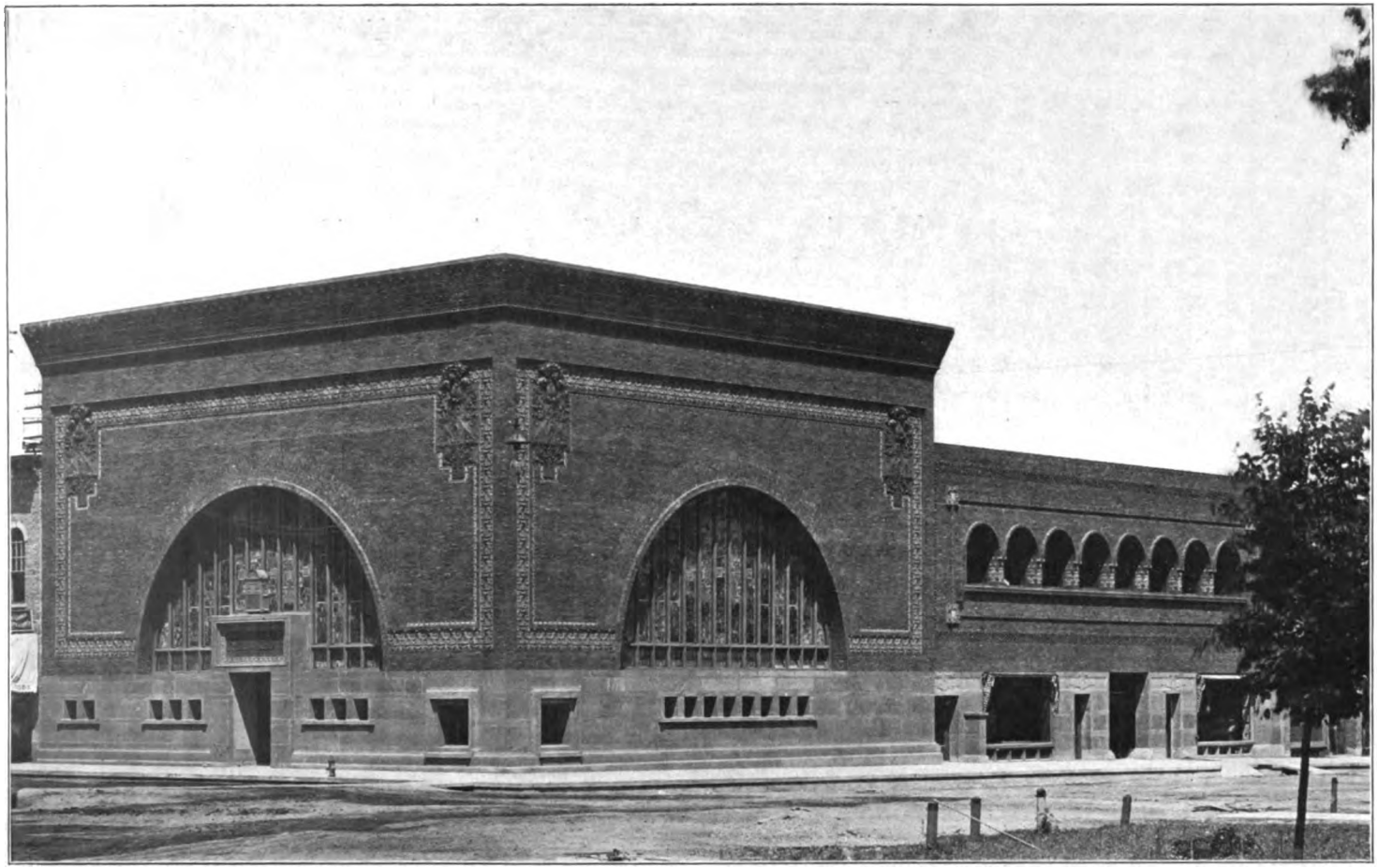
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NATIONAL FARMERS' BANK OF OWATONNA, MINN.—VIEW FROM CORNER.

Louis H. Sullivan, Architect.

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The
Architectural Record

Vol. XXIV. OCTOBER, 1908. No. 4.

The National Farmers' Bank of Owatonna, Minn.

Louis H. Sullivan, Architect

No architectural work can seriously be analyzed without quickly leading us into the field of philosophical conjecture —the why and the wherefore in their bearing upon the fitness to the purpose. The study of the surroundings, physical and moral and of other perhaps more material considerations are quickly brought into play before an intelligent understanding can be had of the *opus*.

Mr. Sullivan stated a great theory of architecture when he framed the terse sentence "Form follows Function." But this means that a quick appreciation of the form can follow only upon a thorough study of the functions. It means that the word, function, expands as we touch it, becoming continually more delicate and far-reaching—embracing not only things readily seen, but as well influence and demands—yes—cravings not so readily seen.

It is difficult to refrain from at once plunging into a philosophic commentary upon an art so philosophic as is that of Mr. Sullivan. But certainly it is not a far cry from the architect to the public that approves and thence to the client who makes the erection of such an edifice possible.

Nor should it be overlooked, in the case of any structure, that the building, as a standing physical fact, is a genuine statement of an intellectual and temperamental sympathy—difficult to describe briefly, but always existent—between client and architect. The structure is in fact the product not of one but of both. And this is the key which quickly unlocks the at-first-glance baffling psychology of our modern American architecture. It secures vividness of view concerning that which is weak in it as well as that which is strong. To be sure, back of both client and architect are the members of the community and the great mass of mankind, exerting, on them both, a mental and moral influence now faint, now strong. To this influence they sometimes yield unquestionably, sometimes they react to them with increased individuality and confidence. It depends upon character. Thus any building is an expression of the character of both client and architect. More than this—it is an expression of the average prevailing popular thought, or of a new and perhaps powerful current of thought forming within it.

To make this general statement specific: Why should Owatonna, a Minnesota farm and dairy center, its name unfamiliar to most of us—a small town scarcely six thousand strong—why should Owatonna want this Bank Building with its new forms telling of new thoughts?

The owners of the institution certainly are not professional dreamers or art-reformers. They are common sense business men dealing in facts and figures with a farmer clientage. Still it

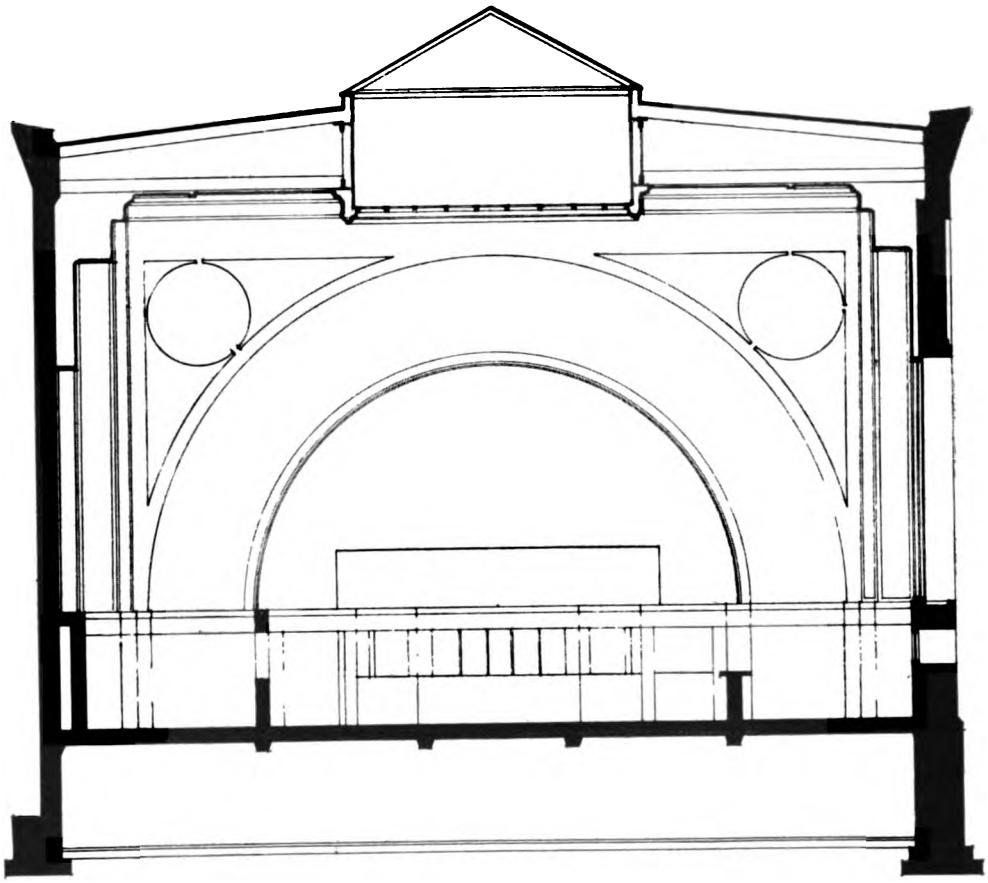
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appears that they elected after exhaustive investigation, that they would not have the conventional building with its Doric or Corinthian order, but went far out of their way instead to erect a building in which a certain architect should be allowed, nay encouraged, to follow classic orders in response to a decadent public demand?

Is it one of the straws that tell of the arising wind?

May we hope that the day is drawing near when the public and the individual client will demand of the architect that



NATIONAL FARMERS' BANK OF OWATONNA, MINN.—CROSS-SECTION THROUGH BANKING ROOM.

Louis H. Sullivan, Architect.

the tenets of his well-known individualistic art.

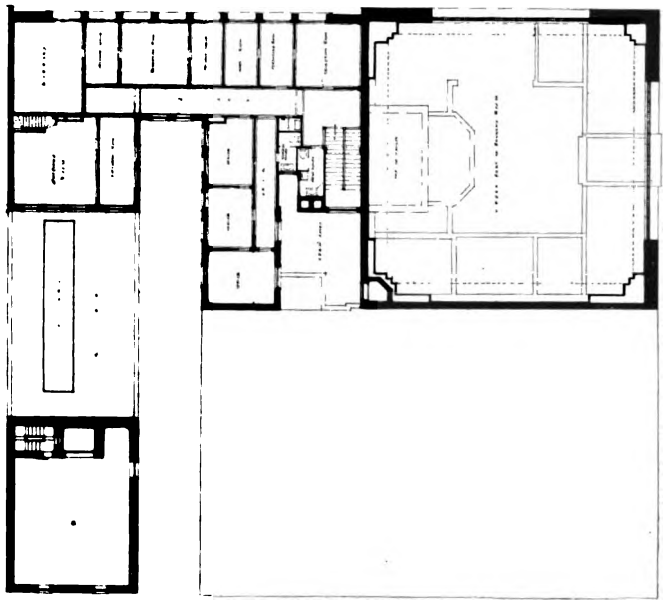
Can this be a forerunner of a return to that independence of spirit, that desire for something close and real which American clients and architects once possessed, even if in a crude way, before the American translation of Vignola was spread upon our every draughtsman's table, and before the architectural hopper began to pour out

he seek and find his inspiration nearer home and close to our lives as we live them?

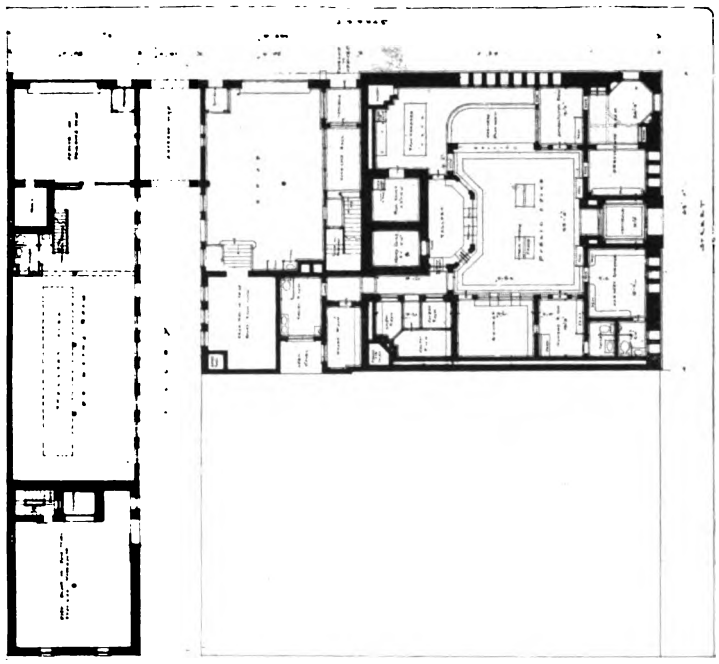
Shall the new building materials, many of beautiful texture and color, which we are constantly evolving, be used freely to the fullest extent of their possibilities?

May we seriously hope that we are slowly but surely turning away from an artificial futility and toward a sane and

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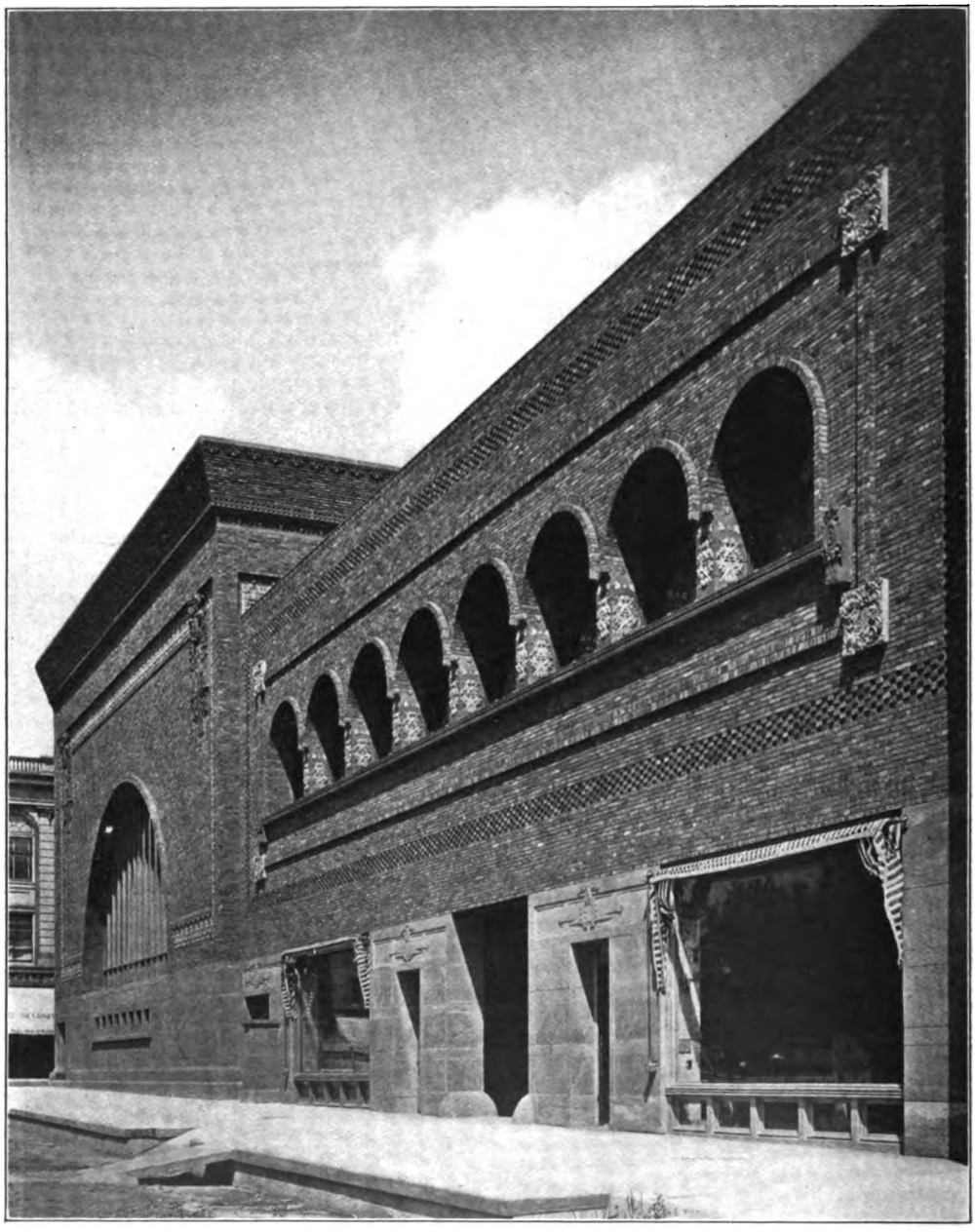
PLAN OF UPPER FLOOR.



PLAN OF MAIN FLOOR.

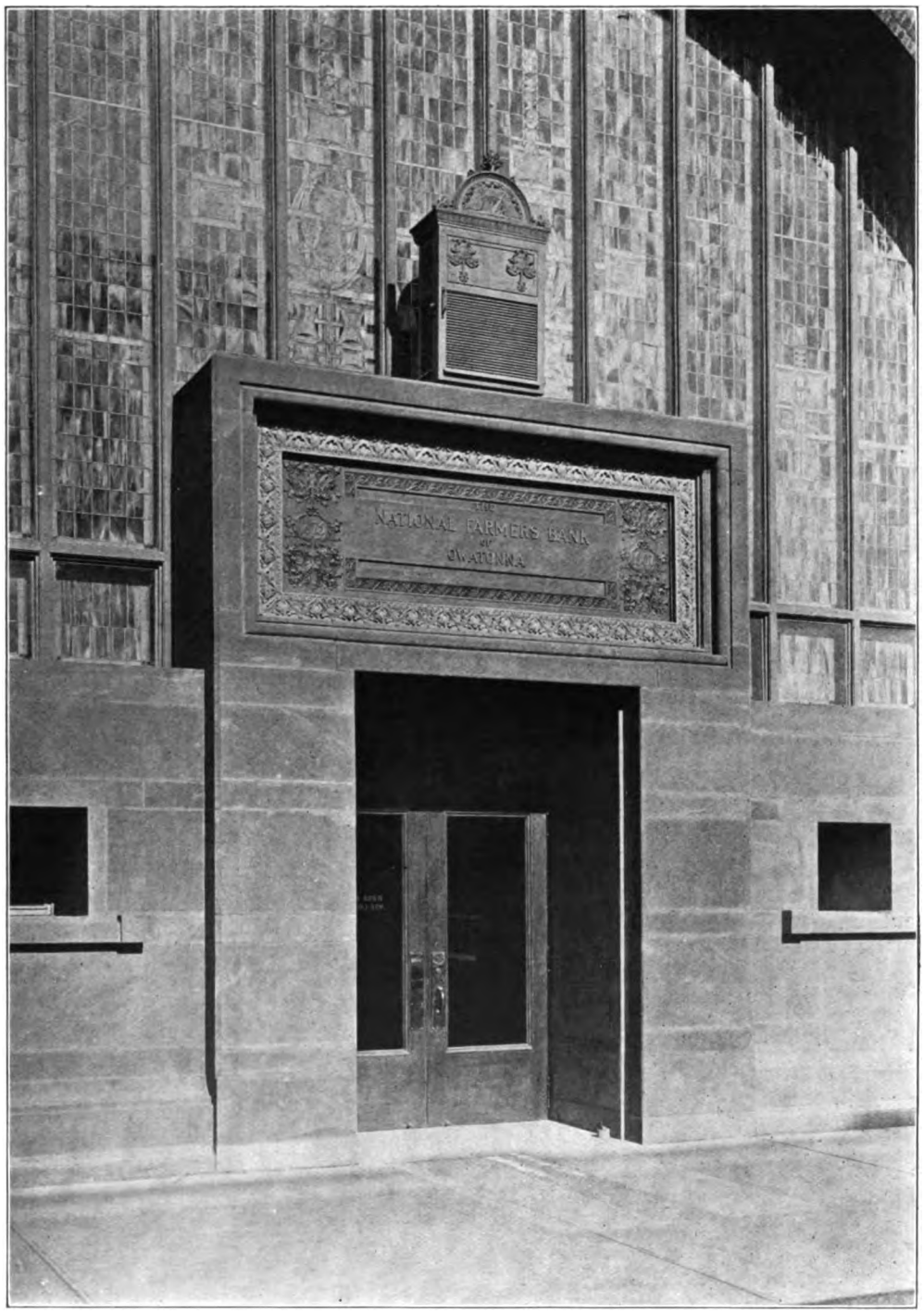
NATIONAL FARMERS' BANK OF OWATONNA, MINN. Louis H. Sullivan, Architect.

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NATIONAL FARMERS' BANK OF OWATONNA, MINN.—VIEW OF SIDE.
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NATIONAL FARMERS' BANK OF OWATONNA, MINN.—DETAIL OF MAIN ENTRANCE.
Louis H. Sullivan, Architect.

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idealistic realism such as befits our better qualities—that we are turning from the negative and unproductive in us to what is positive and wholly bound up with our well-being and our true desires?

In our larger cities our lives according to our station are run more or less by rule and rate. Too often we grow to think and live by recipe. Are we to be taught a lesson by those of simpler, less intricate ways? Shall they point out the new path? Is it from them that we are to receive our lesson in simplicity and directness?

And so goes query upon query. Where are we? Do we really know? Have we found ourselves? Are we seeking to find ourselves? Are we seeking a way out? Are we or are we not serious? Do we or do we not wish to find a solution?

It needs but a brief description of the building. To say that it is "up-to-date" is all that need be said in a practical way.

What the photographs do not convey is the exquisite impression of its color scheme.

The exterior is of brownstone, rough shale brick of varied but soft coloring, brown terra cotta, green enameled terra cotta, and a band of glass mosaic in high color.

Within, the floor is of plain green tile, the low walls and wainscoting of red roman brick capped with green enameled terra cotta. Above this is carried out a consistent scheme of polychromatic decoration in which the colors of early spring and autumn are used. A steadying note of green runs throughout. Two mural paintings will be installed in the blank spaces under the arches, one a dairy scene, the other a harvest scene.

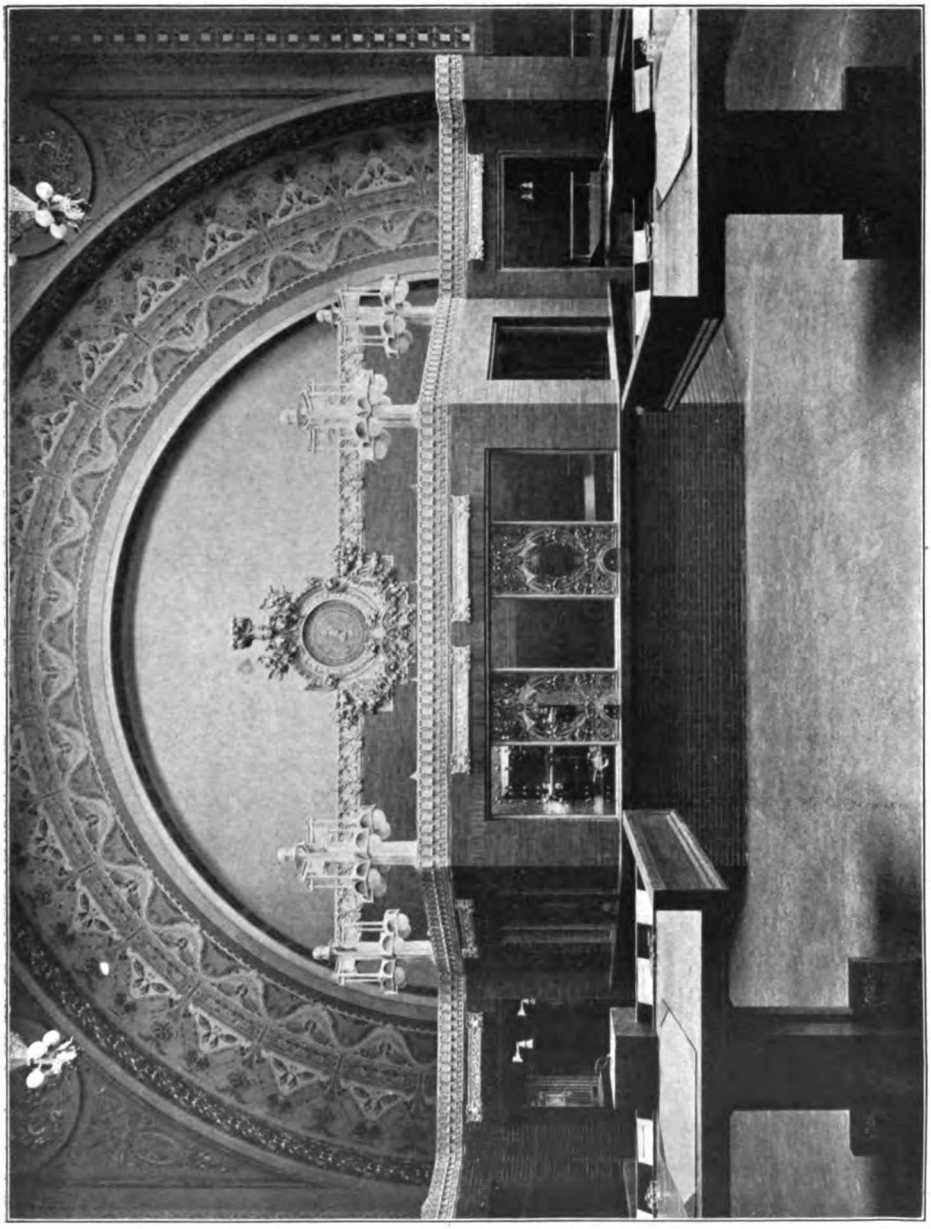
The plan is admirably adapted to its purpose as a farmers' bank. It is, in fact, a "psychological" plan. An interesting practical feature is the provision made in the great windows to resist the low winter temperature and the hot summer sun. The glass is double-plate glass outside, opalescent leaded glass inside—with a hermetically sealed air-space between. The banking room is bright and cheerful. The physical impression it makes on one is truly inspiring.

Mr. Sullivan's art is indeed the result of a philosophy—a philosophy thought out years ago and worked out in his designs and in his writings year by year ever since, until he has actually created what we call a *style* for lack of a better or broader word.

None of the mental unrest which brought into existence all the procession of resuscitated architectural forms, or had I better say mannerisms, which we have watched for the past twenty years or more, seems to be have caused him to deviate a hair's breadth from his first ideals. The revival of Gothic, the Richardsonian, Romanesque, the Italian and Colonial, the Classic and the French arts have not deflected him in his course. The bank at Owatonna is his latest work. In it he has given us a concentrated expression.

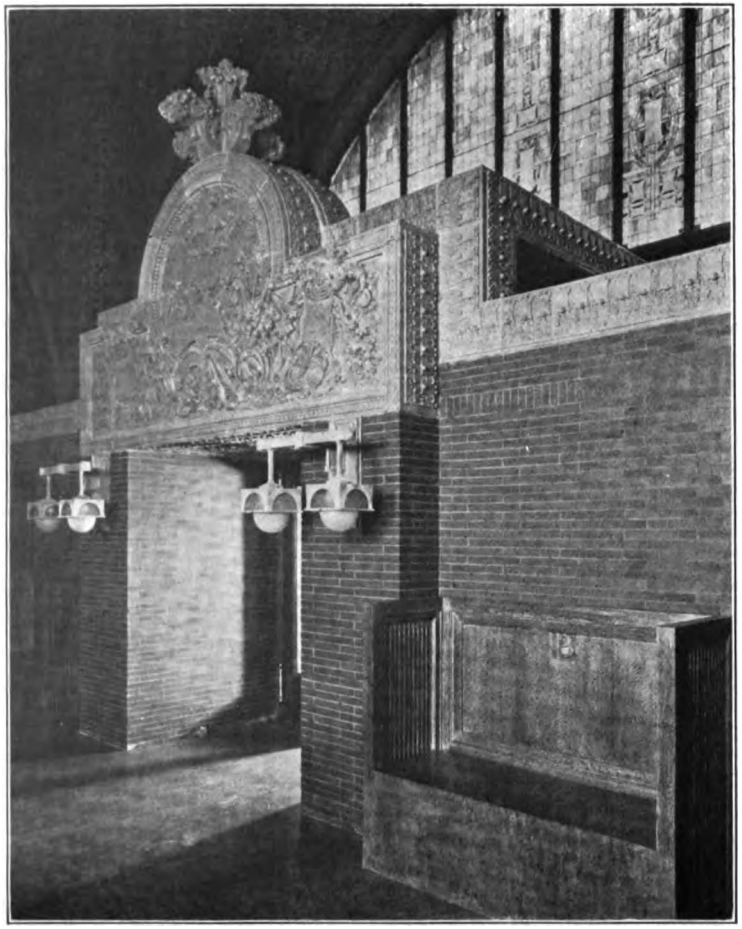
Louis J. Millett.

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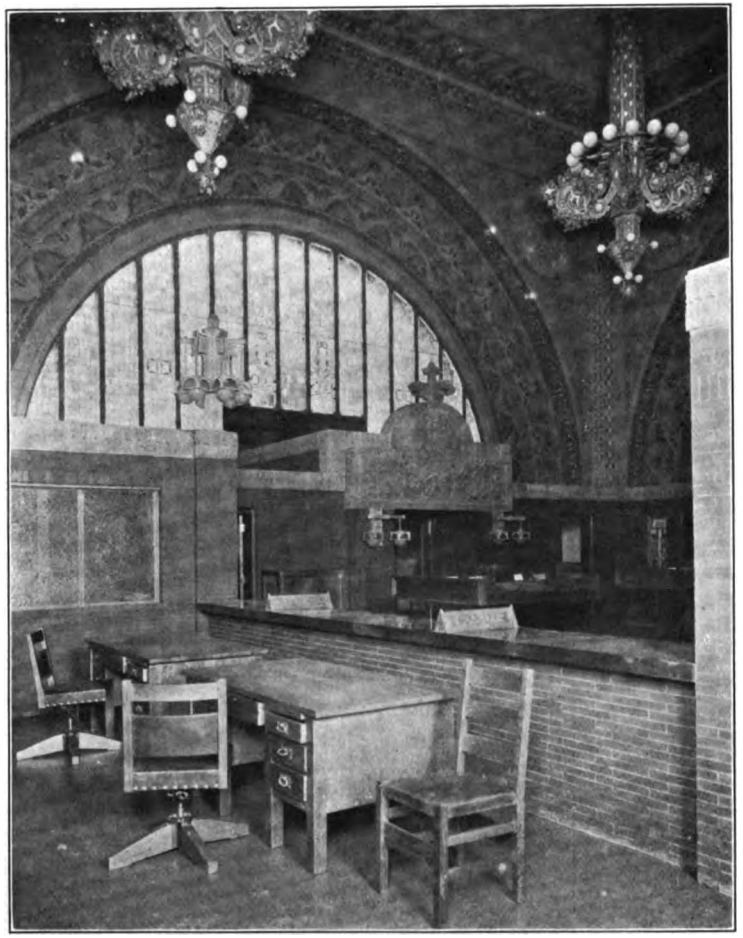


NATIONAL FARMERS' BANK OF OWATONNA, MINN.—VIEW TOWARDS BANKING SCREEN.
Louis H. Sullivan, Architect.

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DETAIL OF VESTIBULE.



VIEW IN BANKING ROOM.

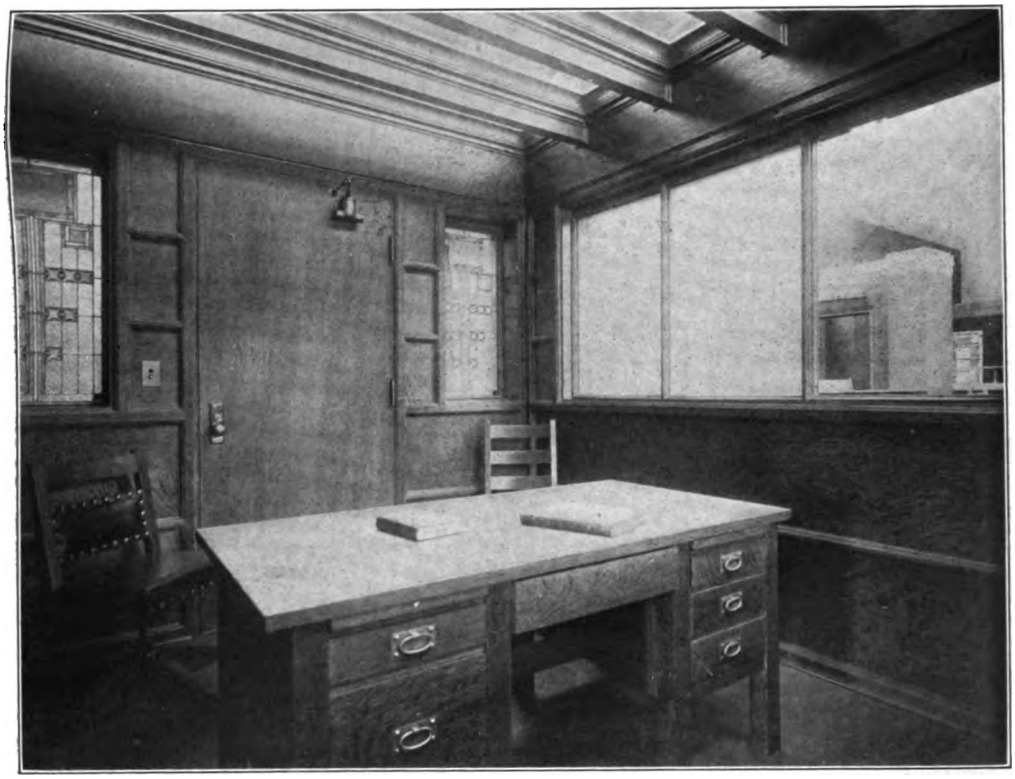
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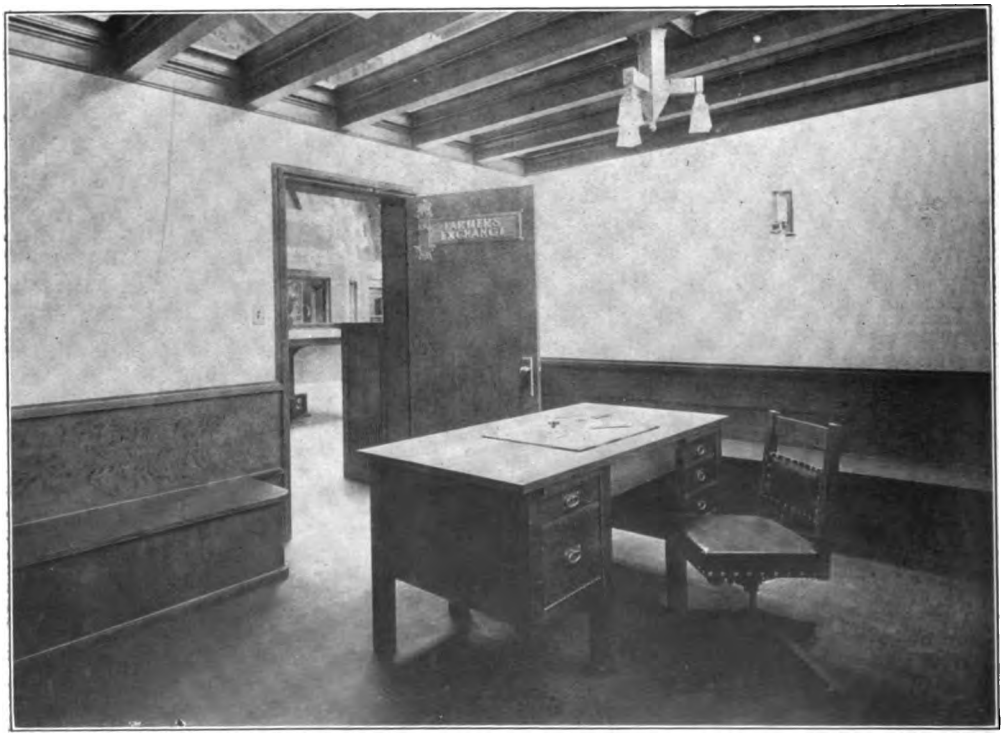


NATIONAL FARMERS' BANK OF OWATONNA, MINN.—PRESIDENT'S OFFICE.
Louis H. Sullivan, Architect.

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CONSULTATION ROOM.



FARMERS' EXCHANGE.
National Farmers' Bank of Owatonna, Minn.
Louis H. Sullivan, Architect.

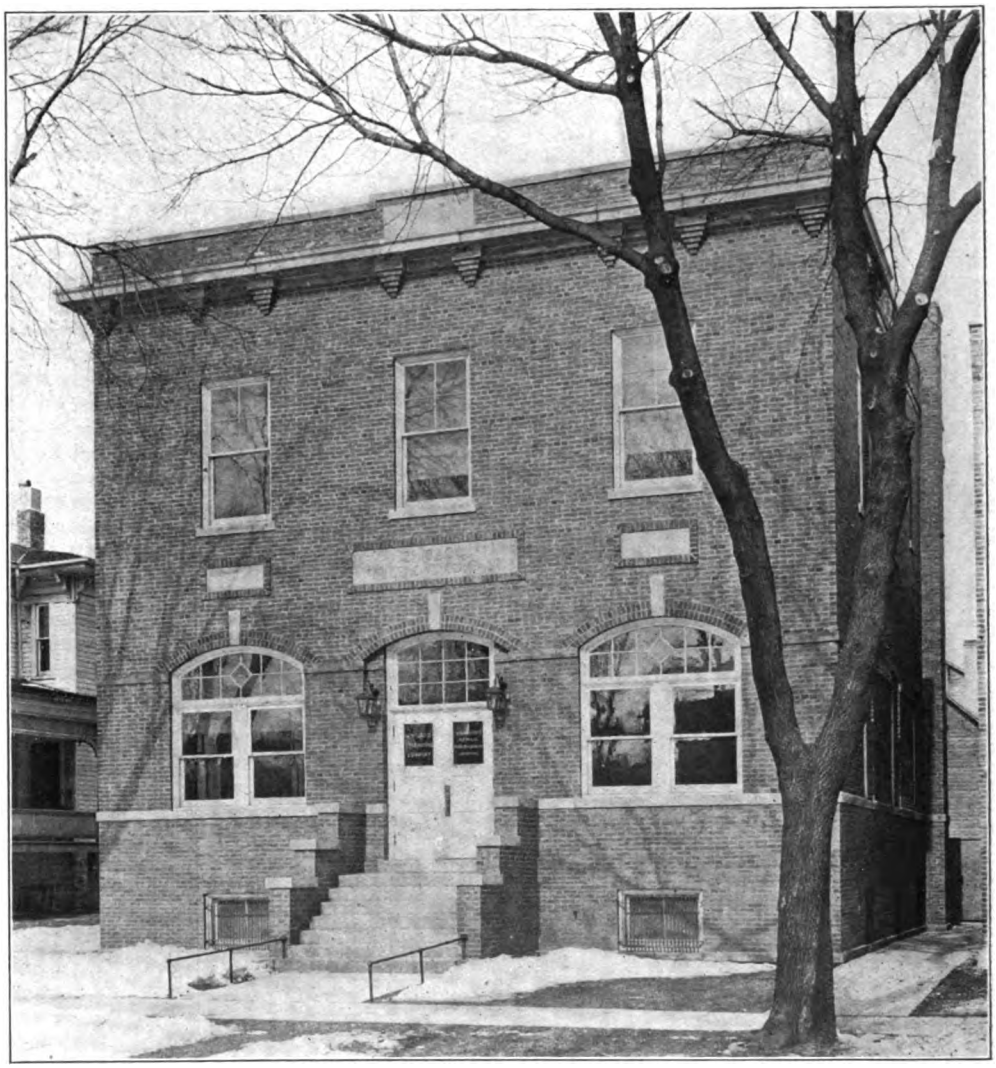
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The Telephone Exchange

This is, possibly, the first general word concerning the characteristics of telephone exchange buildings to appear in an architectural journal. The special nature of the problem is such as not to awaken more than general interest either in the public or in the architectural fraternity. But few architects are called upon to consider the problem, and while a great public is served from within these structures this public does not make that direct personal use of the telephone exchange that it does of the office building, the church, the penitentiary or the theatre. In fact, the telephone exchange bears about the same relationship to the generality of public buildings as does the stage of the theatre to the auditorium, or, more correctly, as the mysterious portion back of the footlights, with its traps, its galleries, its bridges, its gridiron and rigging, its dressing rooms, property and scene rooms, bears to the front, with its gay proscenium, its sumptuous loges, broad foyers and stairways and its resplendent decorations. The nerve center of the telephone life is in the exchanges, where a mysterious mass of complex ganglea gathers the plans and desires of one-half of the community and spreads them to the other half. So flexible in its operation is this network of wire nerves and withal so potent, that one may sit in the security of his own room the while he tells his neighbor just beyond the party wall exactly what he thinks of him; or one may appeal directly for aid and sympathy over the wide space of hundreds of miles, and the tone and inflection of the voice is carried to make clear the meaning and intent of the word. Nature has been some little time in perfecting through evolutionary processes the nervous system of the human being, which now, to all appearances, has reached the final state. For many centuries the church and the theatre have been shaping the forms most perfectly adapted to their special requirements, and from now on nothing in these can be more perfect or beautiful than has been, excepting only the mechanical arrangement of the physical stage. But it was only yesterday, as it were, that a personal friend, who has detailed the experience to me, heard the first word spoken through the telephone. It is not strange, then, that the nervous system of the telephone exchange is not absolutely perfect and final in its development, and that the exchange building has not been "standardized." Not only does the mechanics of the system alter and improve, but the clientele in a certain district enlarges and changes in character, so that a building and equipment deemed perfect and entirely adequate a few months ago now presents a vexing problem to the telephone engineers. A building impossible or impracticable of enlargement standing in the center of a district which it is inadequate to serve is a very vexing and economic engineering proposition. Five years ago, or less, even, the present extent of telephone service was not dreamed of, and but slight opportunity for growth was provided in the exchange. To-day but a fraction of the ultimate is developed in the newer buildings. The economics of the situation is studied by the engineer, and—"to a required degree of approximate accuracy"—the ultimate being determined upon, the structure is planned and designed with that in view. The possibilities of growth with the least disturbance to existing conditions of service and mechanics are most carefully considered. The "frame" rooms are made capable of consistent enlargement; in the "operating" rooms the switchboards may be extended in line, or switchboard space may be augmented by the introduction of galleries. Not one of the exchanges illustrated herewith exhibits a completed design. The new eight-story "Toll and Long Distance" exchange is susceptible of a seven-story enlargement to an alley on

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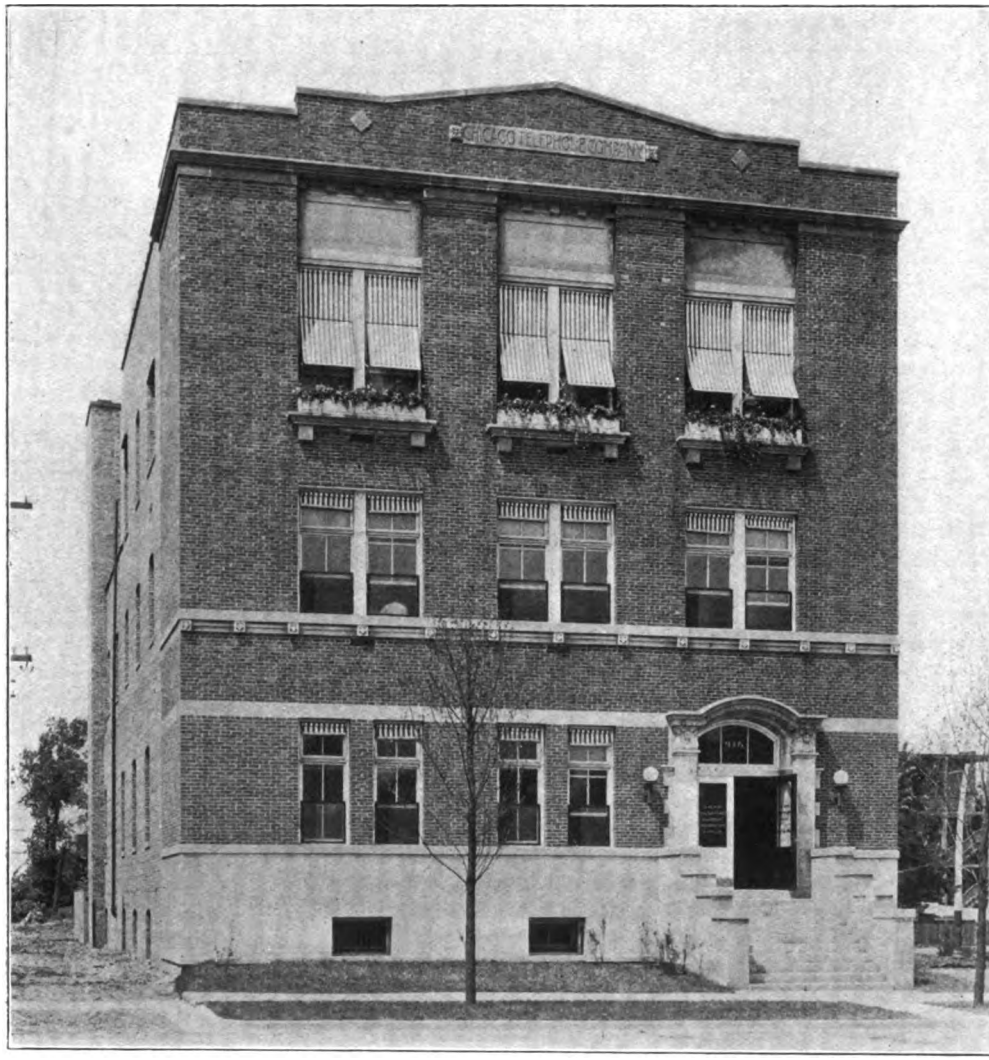
the north, the basement and first story of this addition being already completed. Again, the building is capable of an almost unlimited extension across the court to the south. "Humboldt" exchange may be enlarged by a three-story extension to the rear and a third story over the present building, for which the steel structure and the exterior design are adapted. The "Lincoln," "Edgewater" and "Kedzie" structures are designed for an ultimate of five stories, and the façades, as shown in the photographs from each building, are but a fragment of the design. "Irving Park" exchange is to be enlarged one hundred per cent. in the rear and have a second story over the entire augmented ground area. In all cases it has been the endeavor so to design the structure that addition and enlargement may be made with the least amount of alteration in or destruction of the existing portion, and to the end



LA GRANGE EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

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that the building may not present too unfinished an appearance in its temporary condition. The ultimate operating room in which are the switchboards determines the character of the plan. The long room, with a line of boards at either side, with ample space between, free of columns, for the chief operator's desk and freedom of movement for the supervisors, lighted and ventilated fore and aft, with light also on one or both of the long sides, is perhaps the ideal form for city exchanges, and has been developed to a point of perfection in such exchanges as "Edgewater," "Kedzie," "Lincoln," etc., and has been suggested in "Toll and Long Distance," where, however, conditions did not warrant the fuller development of the scheme. The absolute accuracy of space measurement required for the installation of the inflexible apparatus of the telephone service, the almost absolute lack of any leeway in the location



"EDGEWATER" EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

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of cable wells, slots, etc., make the structural planning, and especially the supervision, matters of extreme delicacy. The telephone engineers locate cable wells, for instance, to the sixteenth of an inch. Sometimes, possibly, the builder, in heavy fireproof construction, shades that one-sixteenth a trifle, but no well-trained telephone engineer will admit that he is justified in so doing! The multiplicity of raceways, conduits and ducts for lighting, house telephones and signals, for the special wiring in connection with mechanical and telephone systems, threading the floor construction in all directions, make close study of the floor section a matter of utmost importance; not infrequently fuel and illuminating gas pipes and tubes for pneumatic service thread this maze of electric conduits and tax the ingenuity of the designer who is figuring close on weight and material in the interest of economy. The city exchanges are substantially of fireproof construction, and in exposed localities are carefully guarded from attack of fire from without by metal window frames and sash and wire glass. Fireproof shutters are also installed as a further protection against undue heat, which may ruin the sensitive apparatus.



"KEDZIE" EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.
Spencer & Powers, Associated.

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In general, the layout of the plant in a three-story exchange is as follows: In the basement are the heating plant, the engineer's room and the men's toilet, the storeroom for district and line supplies, the battery room, the pot-head room—the pot-heads being the terminals of the cable ducts which enter from without. In the first story are the district manager's offices; the frame room, in which are the intricately wired "frames" on which are separated and distributed to the switchboards the multitudes of wires branching from the cables at the pot-heads. A portion of the first floor is used for a store and work room, and in the vestibule generally is placed the public telephone. Outside of necessary hallways, stair and elevator wells, the second story is devoted to the switchboards at which the operators make the connections. In the third story are the rest and recreation rooms for the girls who remain in the building during the off-period (for the girls have a period of rest after two hours' service at the board). The rest room is equipped with easy furniture, books and papers, and in the recreation room are provided games. Adjoining these rooms is the lunch room, where luncheon is served free to the operators, and beyond are the locker and the toilet rooms, each up to date in its furniture and fixtures. In the rear of the third story at "Lincoln" is a men's club room, with toilet room, a fireplace and a platform for lectures and talks. Where space permits, a flower garden is laid out upon the lot and carefully tended in a measure by the girls themselves. The garden is a feature, and when it cannot be accommodated at ground level it is placed upon the roof. "Toll and Long Distance" and "Lincoln" are to have extensive roof gardens. "Humboldt" has a beautiful garden spot at the operators' entrance. Window boxes, as will be noticed in the illustrations, are a common, almost general, feature of the buildings. An eminent critic, writing not so long since in this magazine,* arbitrarily placed the telephone exchange in the factory and warehouse class, and severely criticised the slight architectural embellishment of the "Humboldt" exchange as out of place in a utilitarian structure. It is easy to set up a dummy of straw and then knock it down. It is not so easy to tell just how far to carry ornamentation in any kind of a structure, utilitarian or otherwise. But the telephone exchange partakes of the nature of an office (in no sense a shop or factory) building and of a club of girls, and such being the case I do not believe ornament or the element of beauty and domesticity are liked to be carried to a fatal extreme. It is not the function of the play of color or of the bits of carving about the entrances or of the bright flowers on the window ledges to command "Abandon hope all who enter here"; but rather the function is to invite to labor: "Come, work, rest, recreate and work again amid pleasant surroundings, and enjoy at least a bit of the beauty to which your work entitles you." From what we know of the highly wrought nerves of many of the telephone users, and from our knowledge of the intricacies of the telephone system, we must feel that there is wisdom in providing for the operators these havens of rest in its telephone exchanges.

Irving K. Pond.

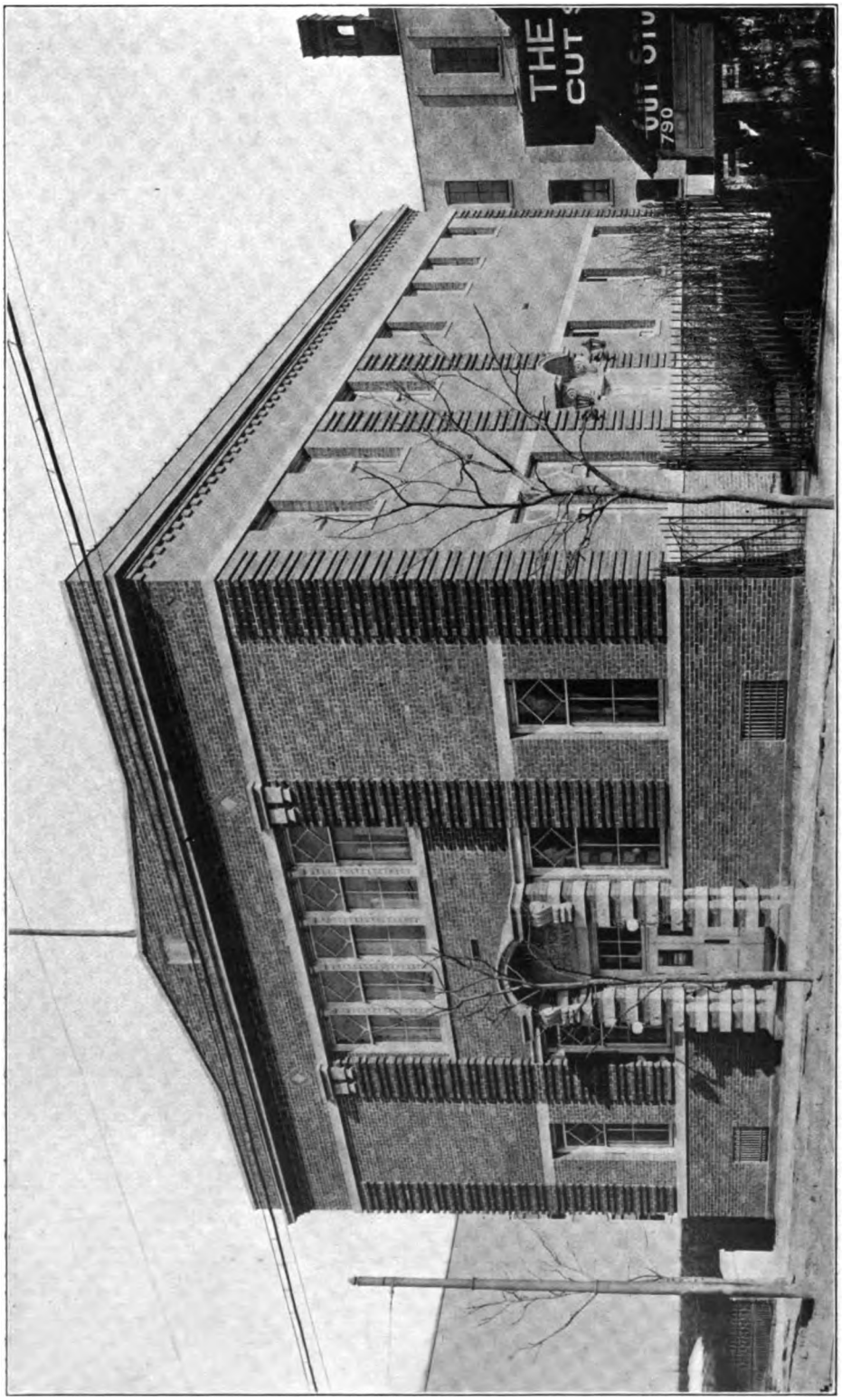
*Russell Sturgis in the Architectural Record for May, 1906.

Mr. Sturgis' criticism was interesting as showing how wide of the mark a critic can shoot when once he has missed the spirit and intent of a design and knows, or has seen, the object only in a photograph.

First, and in a merely material aspect, Mr. Sturgis sees but seven vertical lines of emphasis. The building in plan is rectangular not triangular and at another angle with the front he would see but five, so there are at least eight (in the completed building ten) of these lines. The critic counts (wrongly) certain projecting courses and attributes to them (again wrongly) a certain projection. He pounces upon certain "stone bands" and, that they may not fail to injure elbows or knees, gives them a protrusion which they have not.

Second, on the aesthetic side, the critic fails to see that certain features about the entrances are made heavy in mass and brilliant in light and shade and in color contrast, to serve a definite purpose in the design (which purpose was in a measure served even in his case, for his eye fell immediately upon them). The critic evidently does not understand mass as mass, but simply as an exposition of strength or of brute force. The door head is too light for the supports! A man is not made strong and rugged to support the weight of a thatch of hair. The hair is there to crown the man. The man who lifts and caresses a child does not use all his great strength, but exhibits a tenderness which is beautiful when seen against his great strength and virility. The contrast gives character.—[I. K. P.

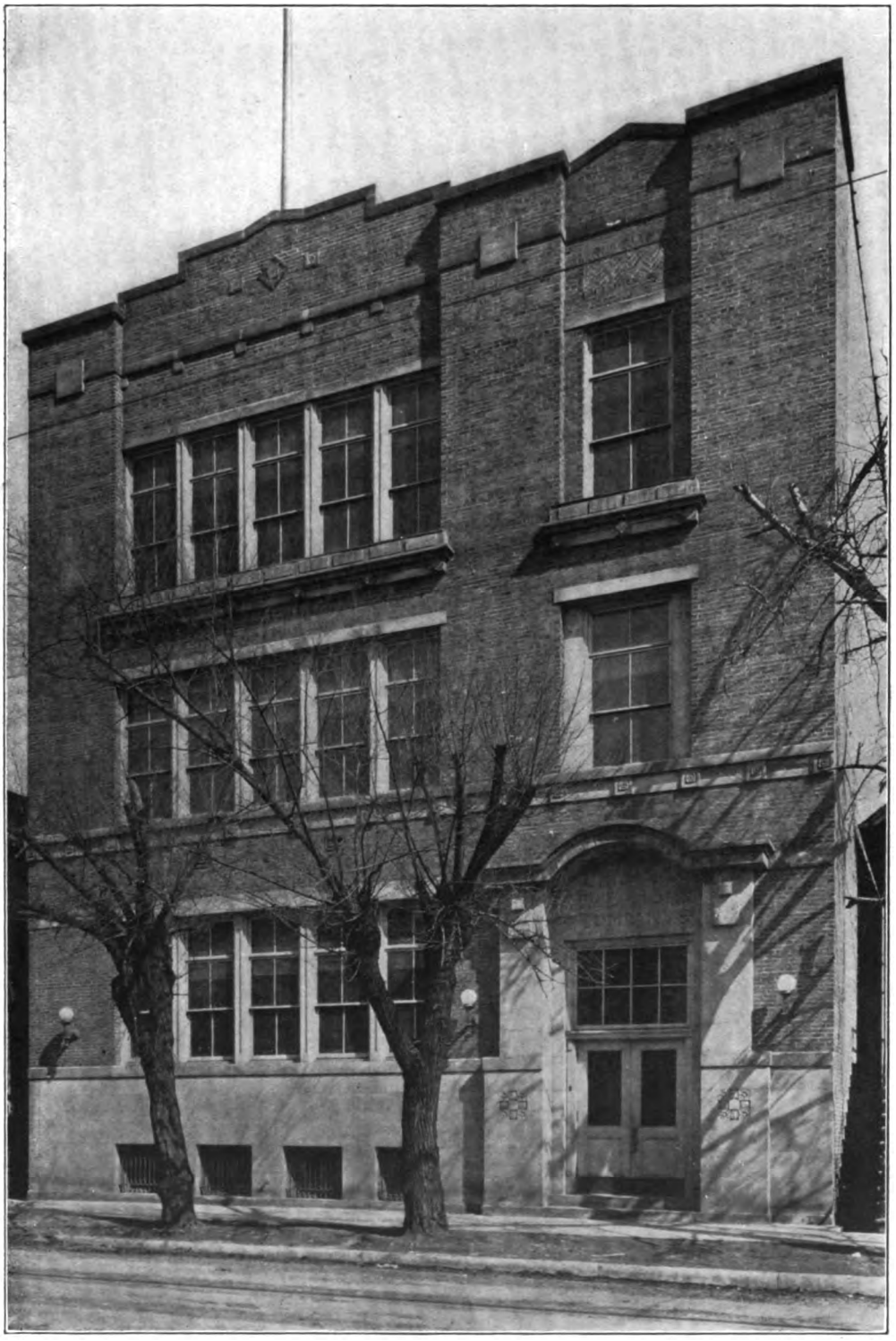
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"HUMBOLDT" EXCHANGE, CHICAGO TELEPHONE COMPANY.

Pond & Pond, Architects.

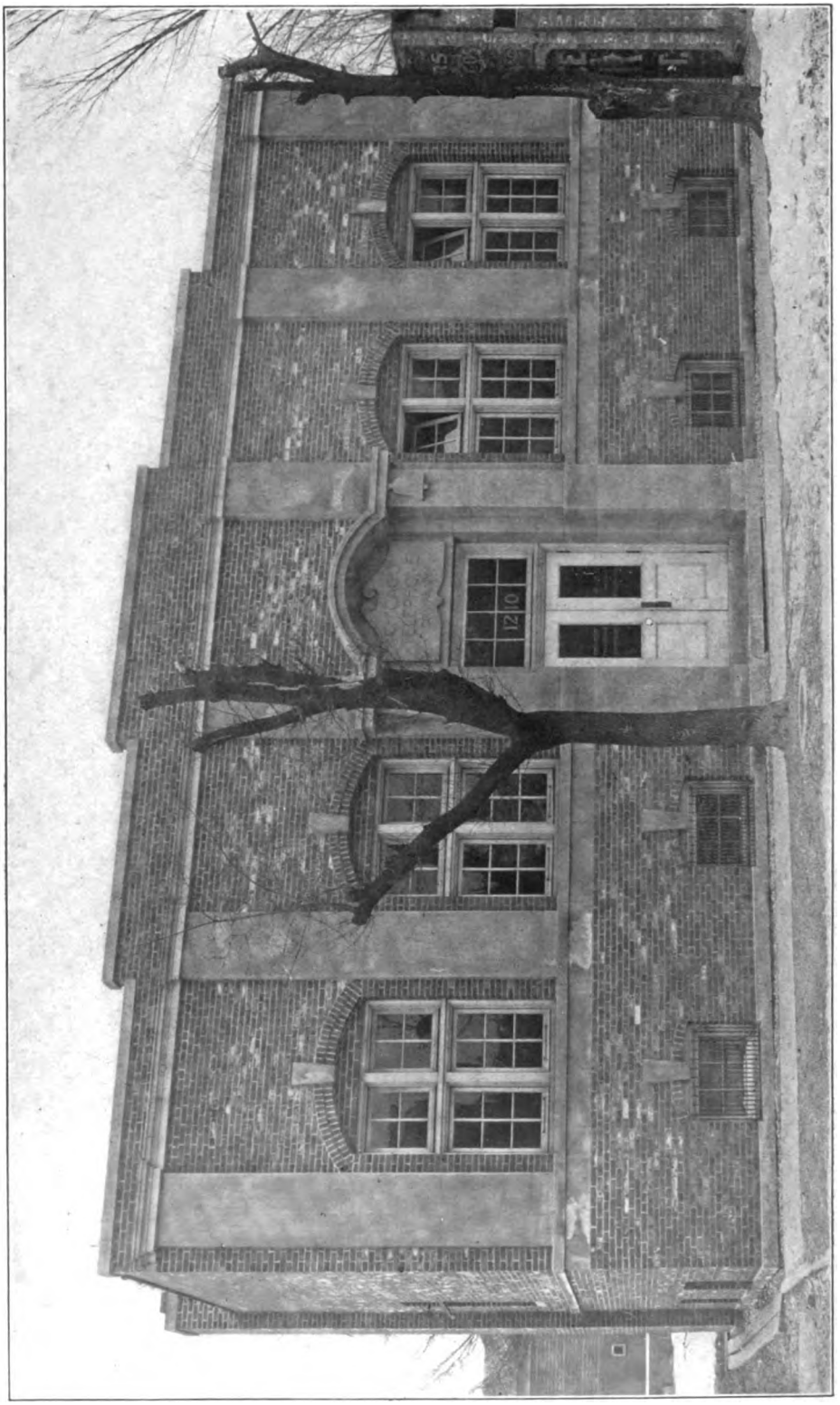
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"LINCOLN" EXCHANGE, CHICAGO TELEPHONE COMPANY.

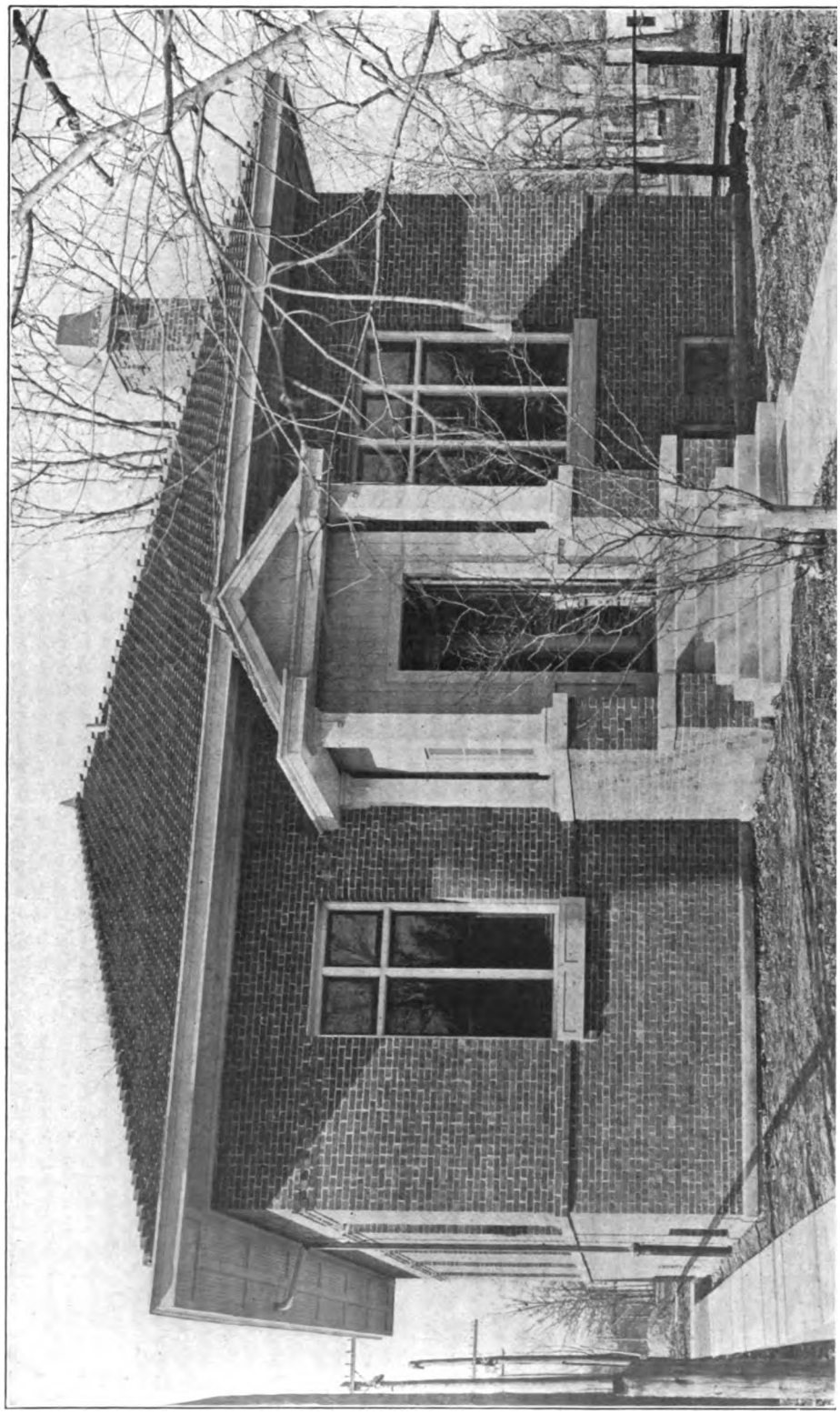
5 Pond & Pond, Architects.

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"IRVING PARK" EXCHANGE, CHICAGO TELEPHONE COMPANY. Pond & Pond, Architects.

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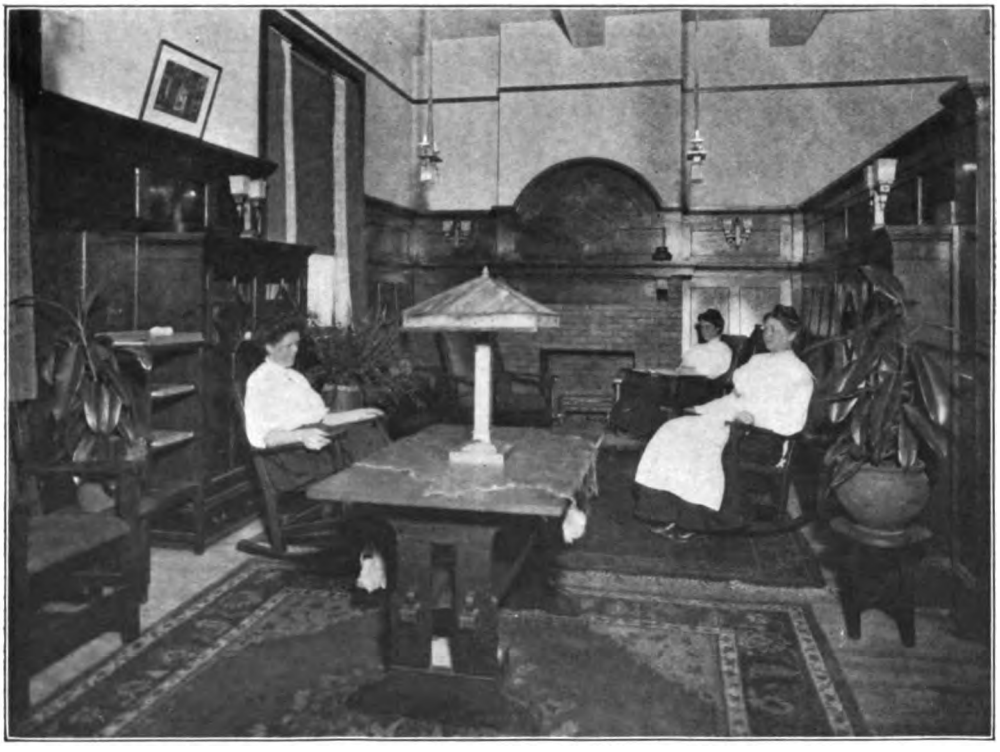


"TOLL AND LONG DISTANCE" EXCHANGE FOR THE CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

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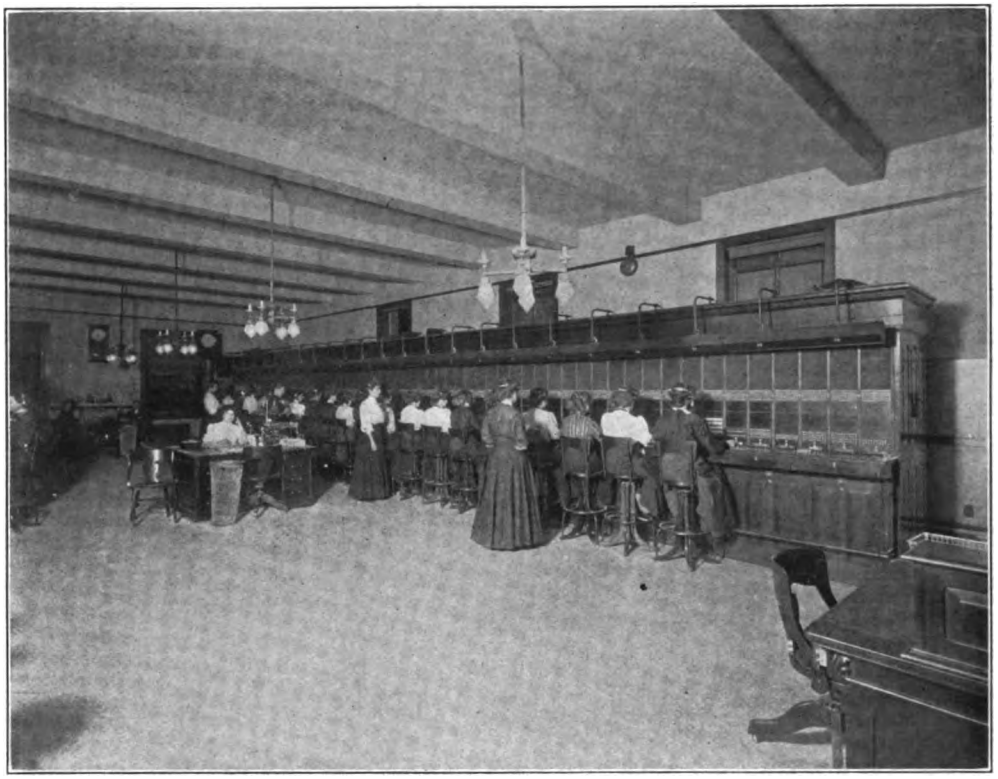


REST ROOM AT EDGEWATER EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

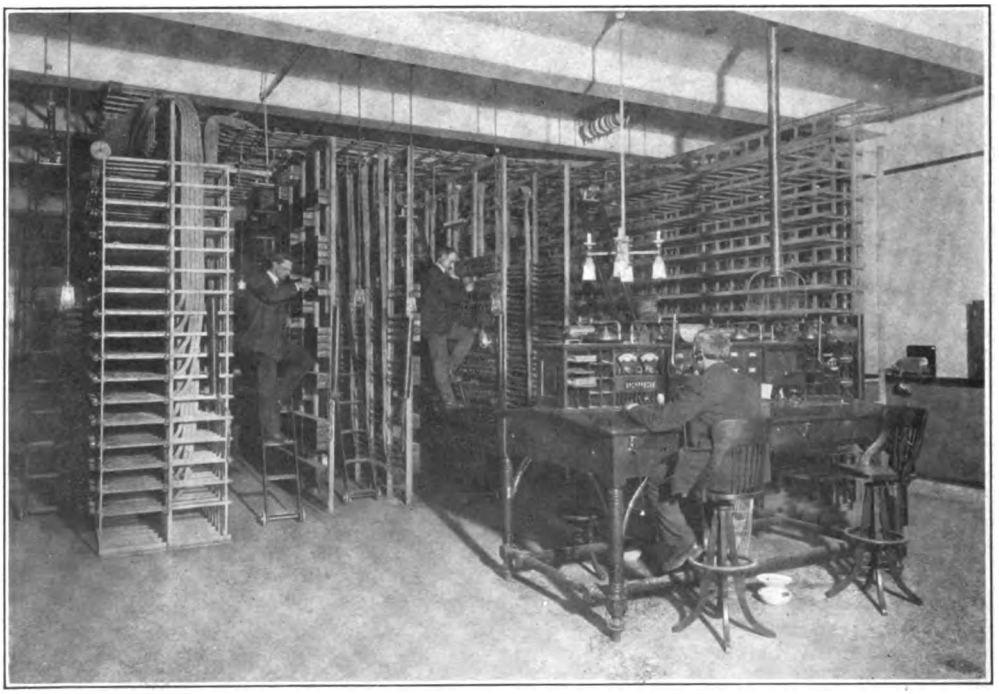


REST ROOM, "KEDZIE" EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

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OPERATING ROOM AT "KEDZIE" EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.



FRAME ROOM AT "EDGEWATER" EXCHANGE, CHICAGO TELEPHONE COMPANY.
Pond & Pond, Architects.

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The College Theatre in Chicago

A theatre has recently been opened in Chicago, which claims attention from many different points of view. In the first place, it has been built, not by a theatrical syndicate, but by a religious and educational society. Its owners are the Faculty of St. Vincent's College, and their object in building it was primarily to provide an auditorium for various college functions. Thus in its origin it differed absolutely from the ordinary theatre. The Faculty were not wealthy enough to lavish quantities of money on the building, but they wanted it to be well constructed, absolutely safe, and as good-looking as their means would permit. The design of the theatre was entrusted to Mr. J. E. O. Pridmore, an architect who has devoted a great deal of study to the problem of planning a safe and a convenient auditorium, and the result has been a theatre which is in some essential respects superior to any playhouse in the country.

The architect was certainly favored by many rare advantages. The site of the building possessed an altogether unusual amount of frontage on the street and a total area which could hardly be afforded in a more expensive part of the city. Mr. Pridmore was not obliged to combine his theatre with an office-building, or to find room on the street frontage for shops, or even to plan his auditorium so that every inch could be stuffed as full of people as the law allows. He was able, consequently, to work out his plan and his design under conditions which gave him a comparatively free hand. He believed that the ideal plan for a theatre consisted in an adaptation to modern conditions of the semi-circular plan of the ancients, and that both for convenience, safety and good looks, a wide and shallow auditorium was necessary. He planned the theatre consequently with a greater width than that of any other play-house in Chicago, and in this way he obtained a correspondingly wide stage and an unusually large seating capacity on the ground floor. Practically everybody occupying a seat is near the stage and obtains a good view thereof, while at the same time the seats are easily accessible and easily emptied.

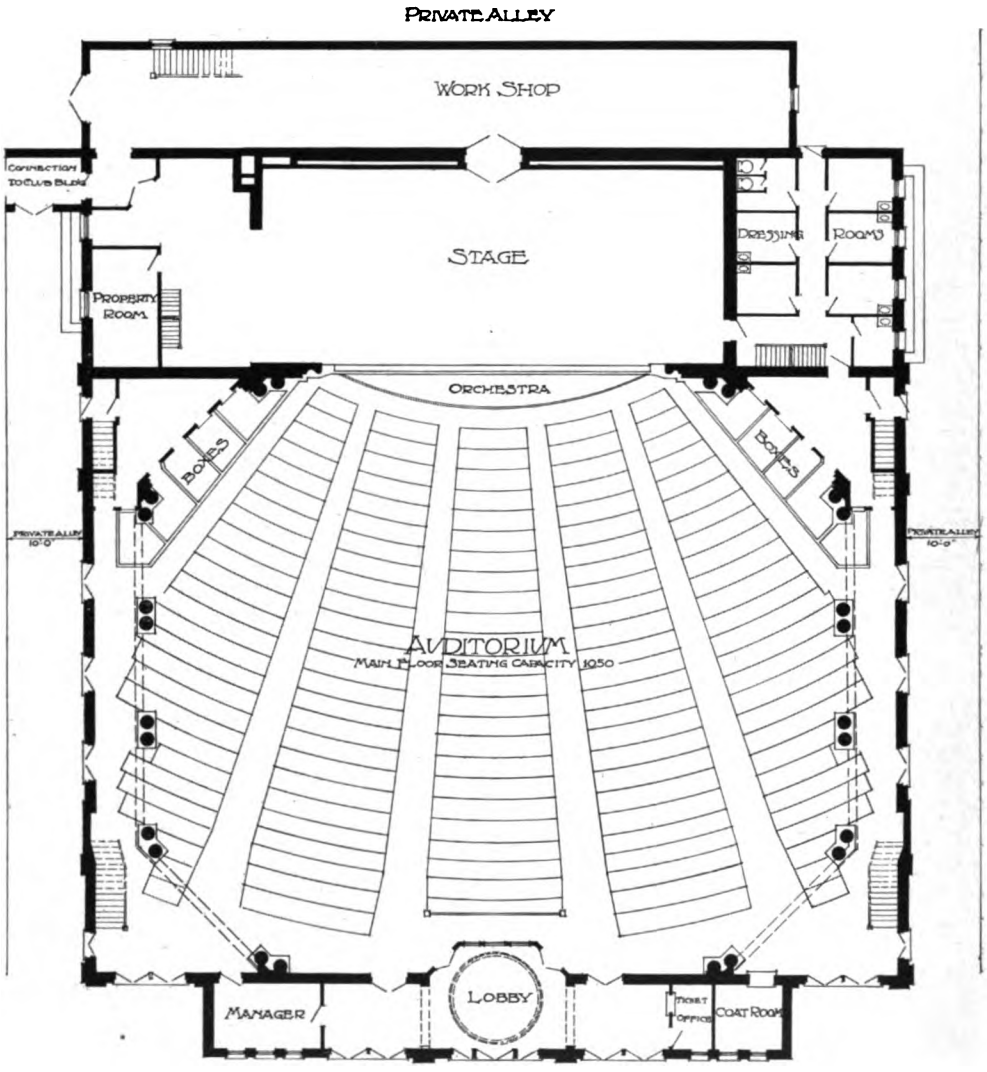
The question of the aisles and the exits received a great deal of attention. Every one of the aisles radiates from a common centre to an individual exit. In order to obtain these individual exits, the front and side walls of the auditorium are pierced with openings leading directly to the street or alleys, and the capacity of these openings is more than double that required by the building ordinance of the city of Chicago. Furthermore the aisles have been arranged to constitute a perfectly safe method of reaching the exits. They have been made wider as they approach their outlet. Under such a plan congestion in the rear of the theatre becomes impossible. The deadly emergency exit, forbidden in Europe, but permitted in this country, is done away with. All the exists are used all the time, so that negligence and disuse of the special precautions taken against emergency can never cause the death of any visitor to the theatre.

The fundamental idea behind a plan of this kind is not the impossible one of preventing a fire, but of making its consequences harmless, if it occur. Nevertheless the architect has not neglected the use of minor expedients looking towards the increased safety of the theatre. An auxiliary system of lighting has, for instance, been installed, and this supplementary system must always be in working order. It cannot be discontinued. Another innovation is a system of ventilation, designed particularly for safety. The currents of air move from the auditorium towards the stage, so that in case of fire on the stage, the flames and the smoke would be deflected in a direction away from the audience.

The College Theatre may be pronounced emphatically to be the safest theatre in the country; and it would be

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almost as safe, even if it were not constructed of comparatively incombustible materials. Its safety depends not upon its structure, but on its plan—on the celerity with which it can be emptied; good-looking design. The shape of the ordinary theatre is such as to tax to the utmost the skill of its architect. It consists practically of a deep well, broken by the lines of the balcony and the gal-



MAIN FLOOR PLAN

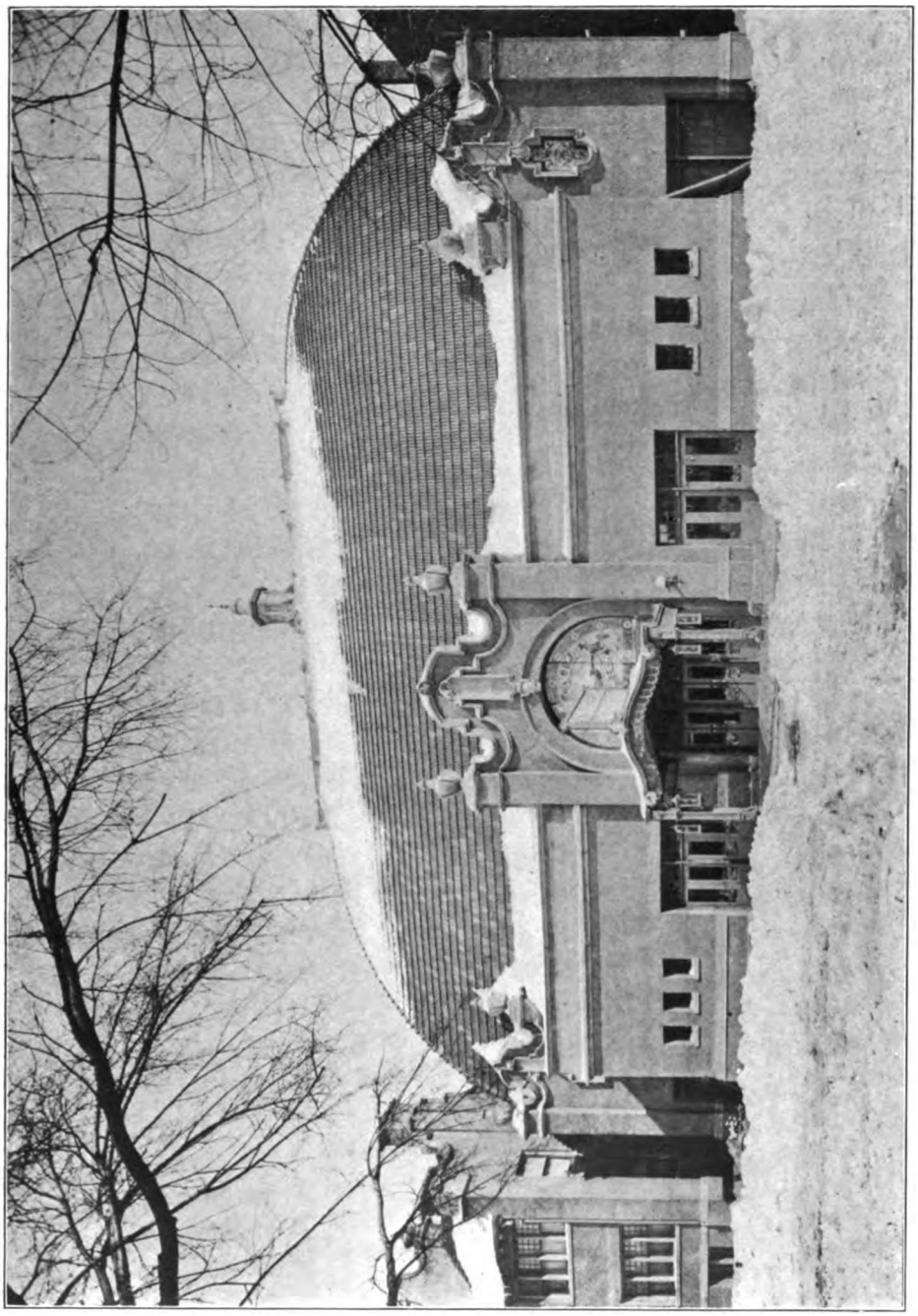
THEATRE FOR ST. VINCENT'S COLLEGE.

Chicago. J. E. O. Pridmore, Architect.

and that is the only way in which a theatre can be made really safe.

It is an interesting fact also that Mr. Pridmore's excellent plan has afforded him the opportunity for an unusually lery. The well is so deep that the ceiling cannot be seen without a stretching and a craning of the neck, and most of the elaborate decoration which the architect devotes to that member of his com-

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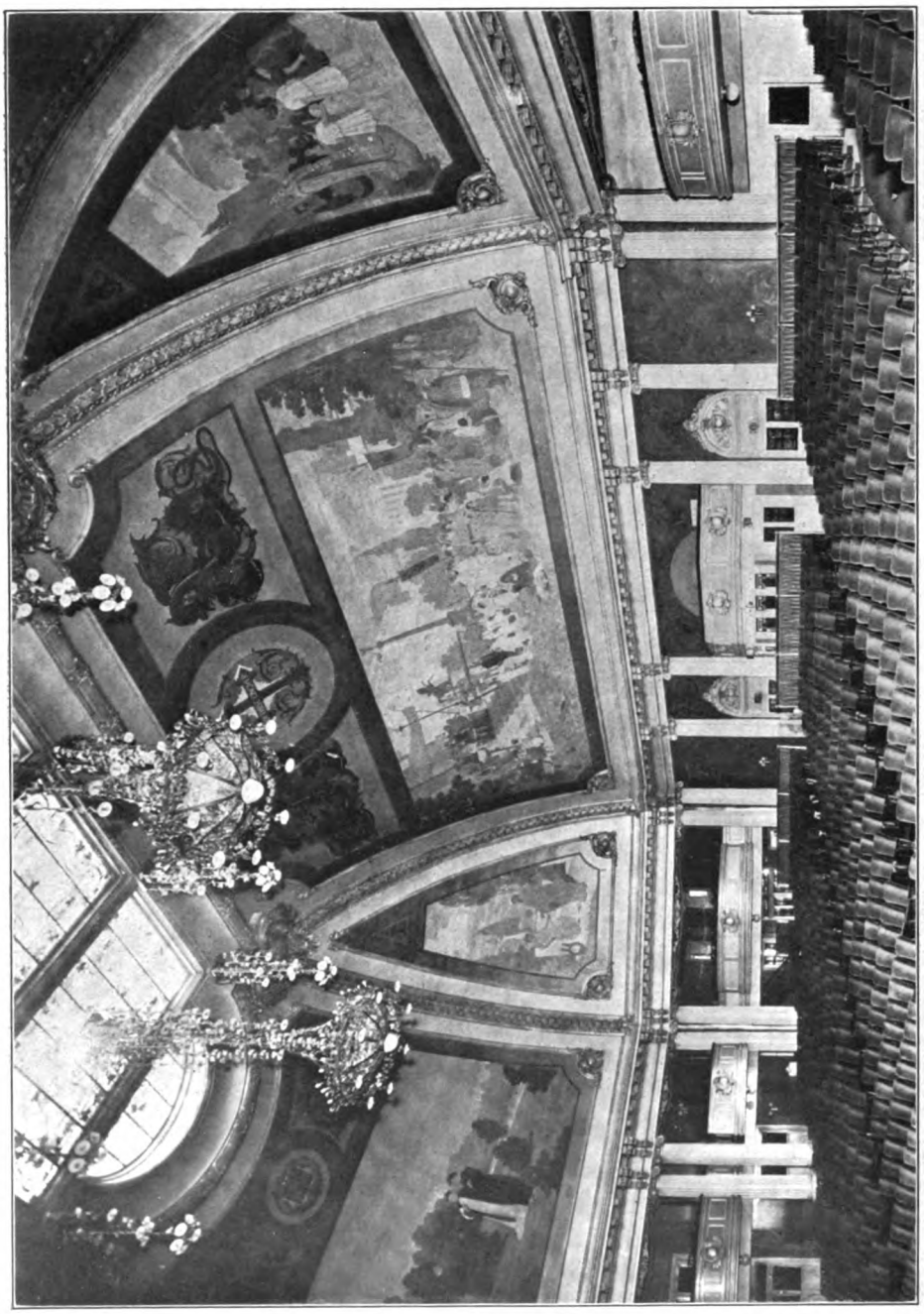


THEATRE FOR ST. VINCENT'S COLLEGE.

J. E. O. Pridmore, Architect.

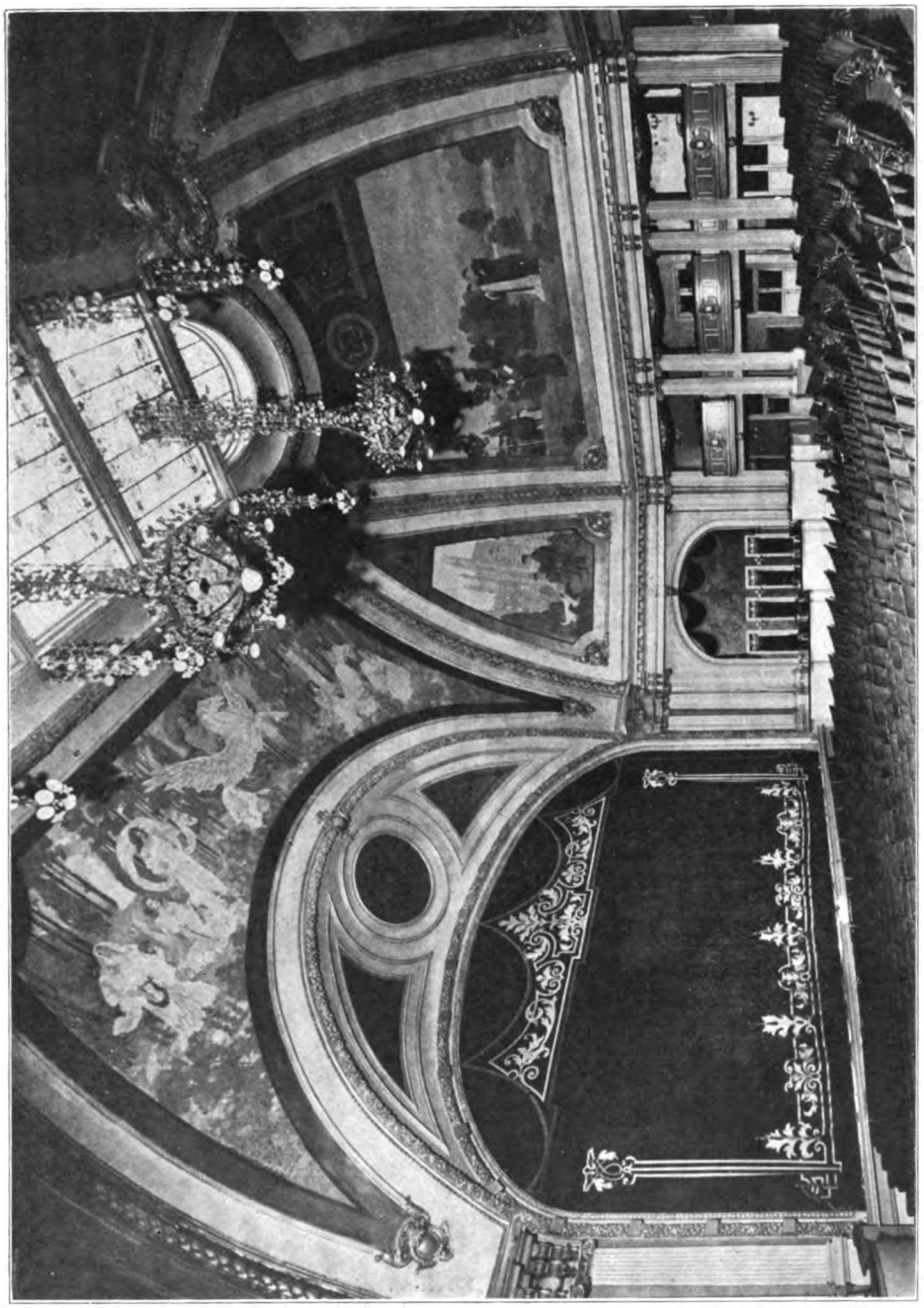
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THEATRE FOR ST. VINCENT'S COLLEGE—VIEW INTO THE AUDITORIUM.
J. E. O. Pridmore, Architect.
Chicago.

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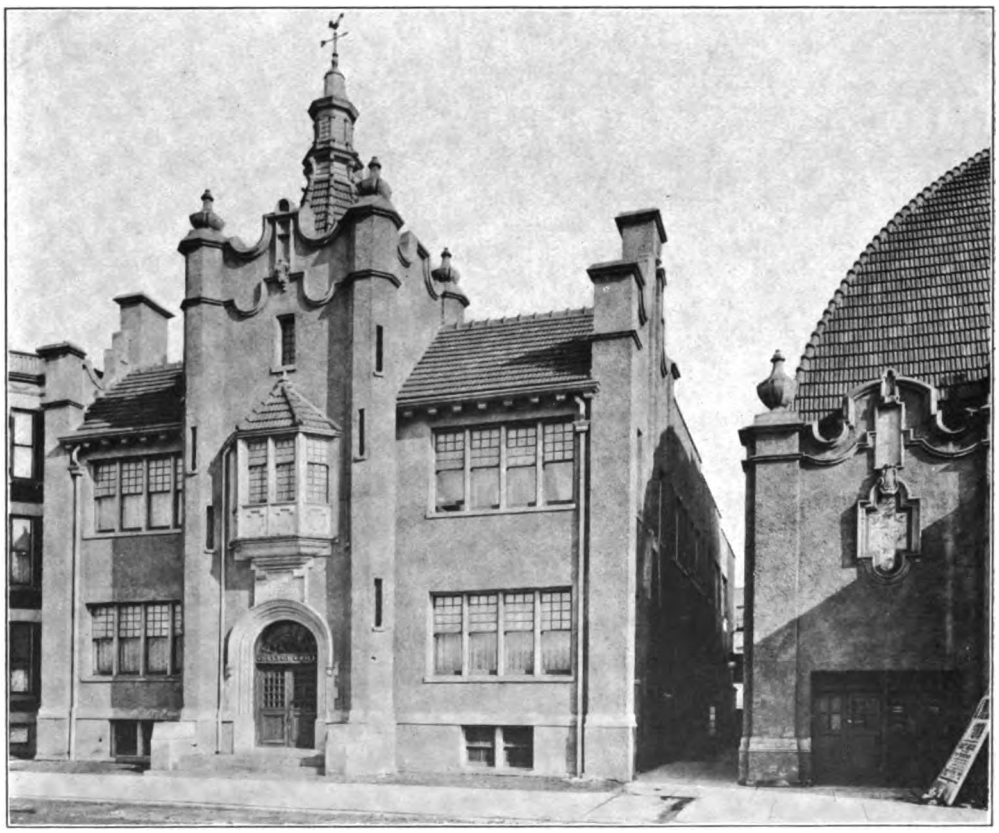


THEATRE FOR ST. VINCENT'S COLLEGE—VIEW OF BOXES AND STAGE.
J. E. O. Pridmore, Architect.
Chicago.

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position remains practically unseen. Then the balconies are necessarily from the architectural point of view an excrescence, which interferes with any really coherent and complete interior design. Mr. Pridmore has been able to avoid all these difficulties. The auditorium of the College Theatre is simply a large domed room. The dome springs from a height adapted to the scale of the whole composition—a height which enables him to get both a sufficiently large proscenium opening and a row of boxes between the columns, which encircle the auditorium. The domed ceiling, instead of being almost inaccessible to the eye, is easily visible; and the mural decorations, with which it has been embellished, contribute effectively to the appearance of the apartment. They can be enjoyed without any effort, because they can be seen from a proper distance; and they constitute so far as we know almost the only example of appropriate mural decoration in any theatre in any American city. Mr. Pridmore is to be congratulated from every point of view, and it is very much to be hoped that some other architect will have an opportunity to follow his example.

William Herbert.



THE COLLEGE GRILL IS NEXT DOOR TO THE THEATRE AND CONFORMS IN ITS GENERAL EXTERIOR DESIGN TO IT.

J. E. O. Pridmore, Architect.

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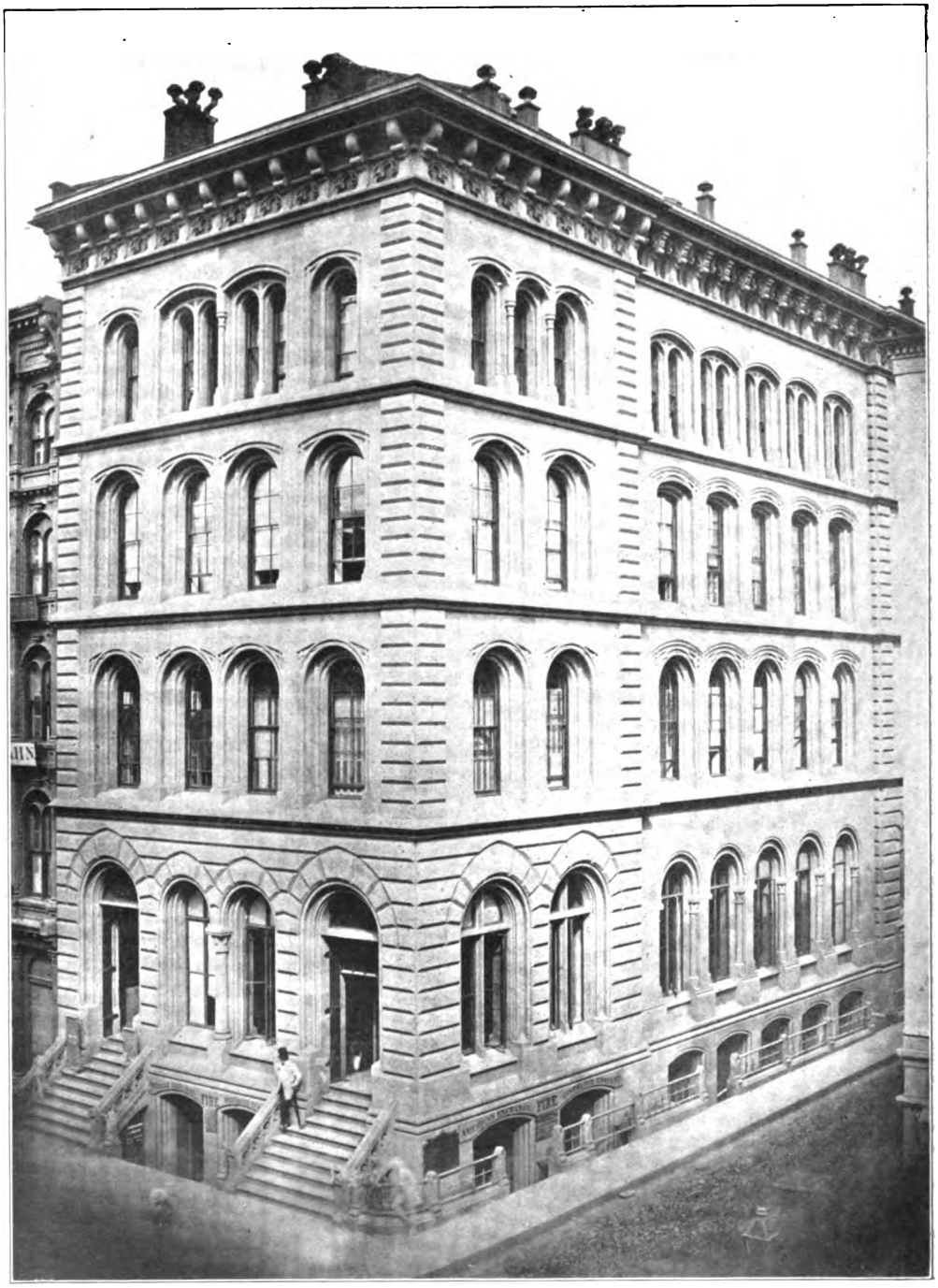
The Work of Leopold Eidlitz

II—Commercial and Public

That synagogue in Fifth Avenue, of which we have just been talking, is especially memorable to the present chronicler, because it led to his personal acquaintance with the author, about the most interesting acquaintance he has made in the whole course of his life. I was present at the dedication of the synagogue, just forty years ago. And I made it the occasion of my début in architectural criticism for the "World," with which I was connected; Manton Marble's "World," the Pre-Pulitizerian "World," "The World Before the Deluge." *"Ne pas confondre."* It was not a very good specimen of architectural criticism, I have to own, having just now read it over, but I can by no means regret it, since it led to a meeting, and that began in an altercation which became a friendship, and on my side a pupilage.

My obvious point of attack was the solecism of the cruciform plan for a synagogue, and I worked that for much more than it was worth. But I am glad to observe that the "effort" attested the hearty admiration for other and earlier works by the same author which the jaunty young critic felt. For the American Exchange Bank and the Continental Bank and the Produce Exchange and the Brooklyn Academy of Music were already standing, though they are all gone now; had been standing when he arrived from "up the State," prepared to be astonished and ravished by the architectural glories of New York, and found that for the most part they left him cold; that it seemed to him, though the phrase cannot have come in for a generation, that they were one and all "putting up a front." Even Trinity, which, as a youth of "Anglican" upbringing he was prepared unreservedly to admire, he found essentially in the same class with the Ionic colonnade of the Custom House further down Wall Street, a harmonious assemblage of forms which had been harmonized by secular association, a form language which was capable of being grammaticised by the very fact of being dead, an architecture of the past which bore no earnest of becoming an architecture of the future. But these few exceptional works attracted the novice "addicted to swearing to the words of no master," by the fact of reality and life. They seemed not to be historical evocations, but solutions of the present building problems in terms of the present, things made out of their own elements and for their own purposes, really bank, exchange or theatre, as the case might be, works that were of no style and that yet had style. "A thing has style," says Viollet-le-Duc, "when it has the expression appropriate to its uses." And, from this point of view, it was much in favor of these things that they were not "examples," like Trinity and like the Custom Houses. Be it remembered that they antedated, sometimes by a decade, sometimes by two decades, the few subsequent successes of secular Gothic, Mr. Wight's Academy of Design and Brooklyn Mercantile Library, Mr. Cady's Brooklyn Academy of Design, and, if you can call collegiate architecture secular, Mr. Haight's buildings for Columbia, and for the General Theological Seminary and Mr. Potter's for the Union Theological Seminary. For, long before the series of his ecclesiastical works were concluded, in fact, not very long after it was begun, the author of them had a chance to try his hand on secular buildings. Probably these problems were more welcome to him than the churches, in which, by the necessity of the case, tradition governed, even though, as we have seen, the prevailing Anglican tradition did not govern him, and he neither inherited nor really assimilated it. Reason was to him the guide of life, the guide in art. He knew no other. And

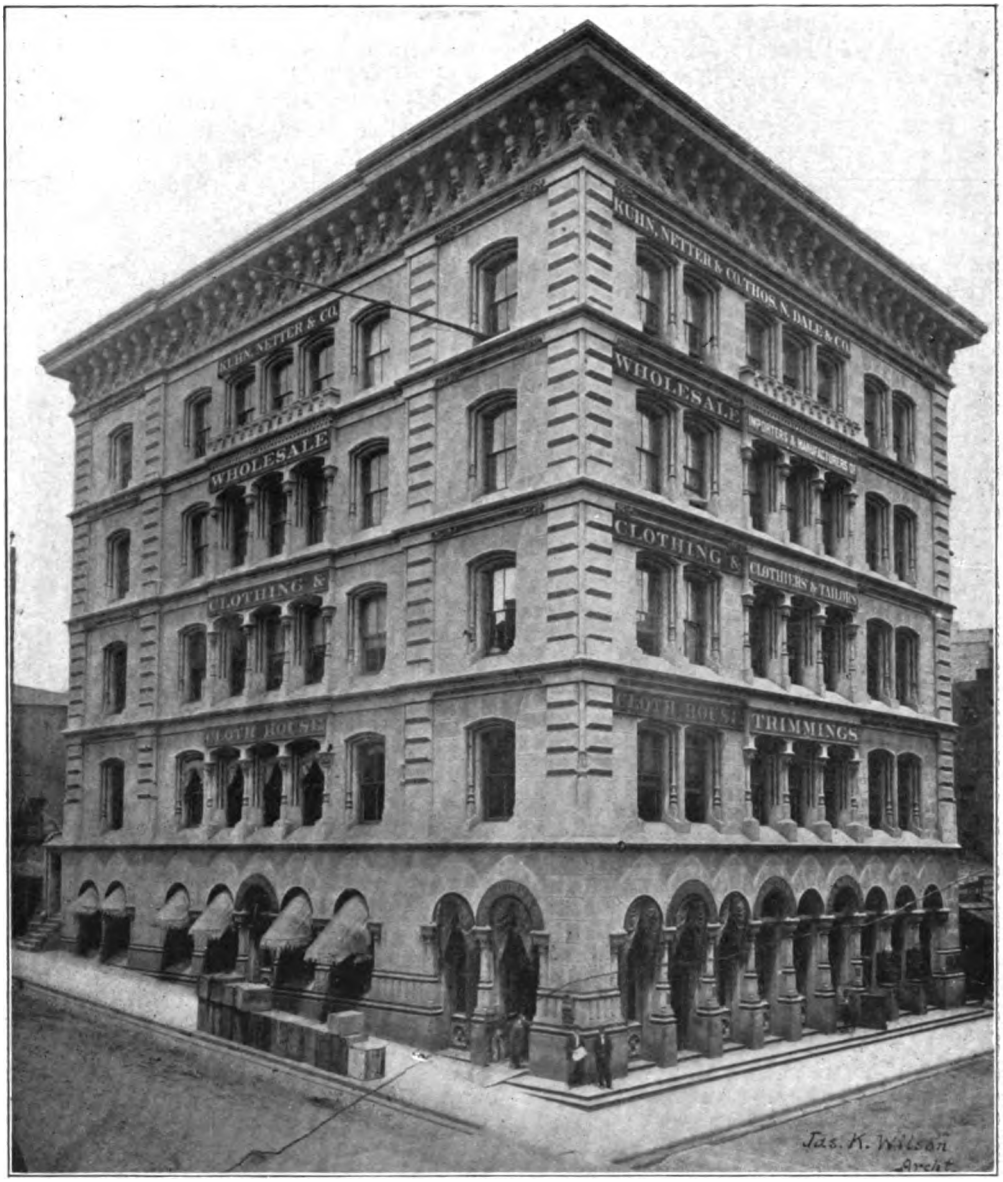
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AMERICAN EXCHANGE BANK (1857-99).
(The first fireproof commercial building in New York.)
Broadway, New York. Leopold Eidlitz, Architect.

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the logical shortcomings of English Gothic, in comparison with "Continental," shortcomings which he took an unsparing pleasure in pointing out and which he himself did not partake. "By all means an architect ought to read Ruskin," he said once; "it helps him keep his enthusiasm." That was the

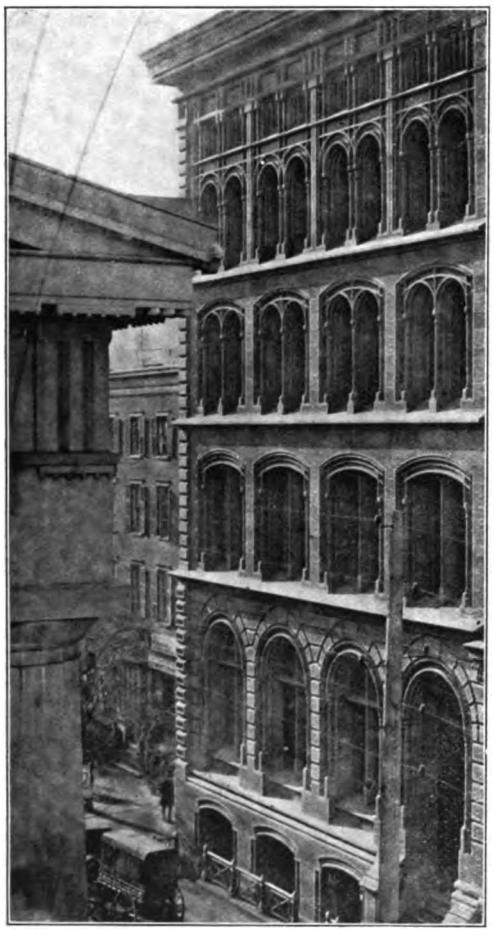


WAREHOUSE IN CINCINNATI (1859).
James K. Wilson, Architect.

analyzing, would have prevented him from taking that as a standard, especially from substituting for reason a traditional and hereditary "feeling" of value he set on "the most analytic mind in Europe." One sees why he should have worked more freely upon secular than upon ecclesiastical problems, nec-

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essarily of tradition as the latter so largely are. His whole lifework was devoted to what seemed to his mind the rationalization of architecture, and it was a remarkably clear and vigorous mind. He would perfectly have agreed with that bold literary reformer of architecture, Viollet-le-Duc, whom, characteristically, he found "too timid," that "we can bring the taste of this generation to perfection by making it reason."



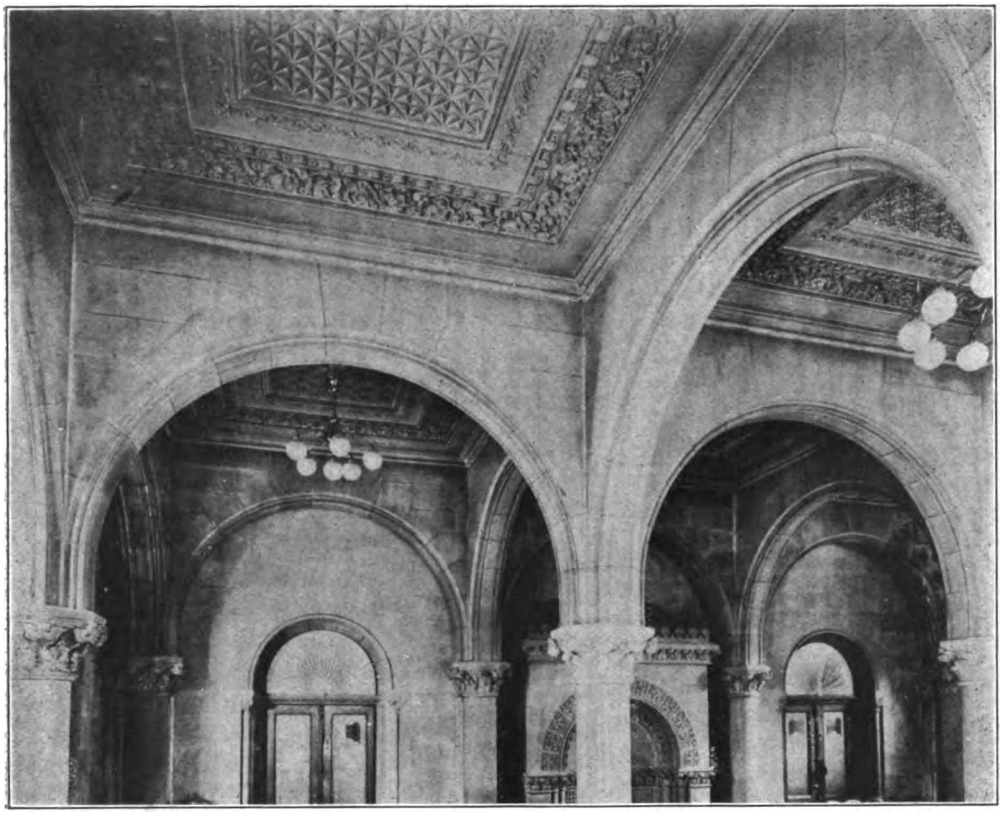
THE CONTINENTAL BANK.
(1859-1901.)
Nassau Street, New York.

* * *

His first essay in secular work, the American Exchange Bank, was contemporaneous, or almost so, with the Broadway Tabernacle, since destroyed. As might be expected from what we have said, it is a far more important and pregnant work. It also had the distinction of being the first fireproof building erected for commercial purposes in New York, unless an exception be made of the then new and now doubly old and demolished Times Building. The problem of the commercial building was so different then and now that the two things are incommensurable. Then the limit of ascension of the unassisted human leg fixed the height of a commercial building at five stories. An attical sixth, lighted from holes in the cornices, might be added for the so-called "accommodation" of the janitor's family, assumed to be immune from leg-weariness and incurious of the outer world. But then, as now, "the prayer of Ajax was for light," Ajax being the hypothetical tenant. Ajax wanted all the light there was, and more than could decently be afforded, compatibly with the aspect or the reality of solidity in the walls. His requirement can plainly be more easily fulfilled in a steel-framed building than in a building with real walls of masonry. The problem of the old-fashioned commercial architect, if he happened to be an artist, was to make his building look solid, and at the same time to satisfy the demands of Ajax. Nobody who saw the American Exchange Bank in course of demolition but will agree that its construction was characterized by great massiveness in fact. Its ruins looked Roman. Nobody who remembers its aspect "in life" will deny that it was characterized by great massiveness in appearance; yet, its architect used to point out, the proportion of voids to solids in its facades was greater than in the adjoining building on Broadway, the then abode of the Mutual Life, an effusion from the muse, perhaps of Kellum, at any rate a perfectly commonplace front which looked like a pasteboard screen, whereas the bank was an unmistakable mass of masonry. So far, the bank was a great success. But it was still more a success by the arrangement and the detail of its fenestration, which made it an architectural composition, and more yet by its crown-

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ing member, the beetling cornice in solid stone which would have seemed excessive at that time even in a sham of sheet metal. A visible roof the architect always insisted upon where he could get it. But where, as in these banks, it was clearly out of the question, he strove to compensate its absence by the most emphatic cornice he could contrive. "Richardson," he exclaimed long afterwards, in the collaboration of the Capitol, "what that cornice of yours needs is not more height, but more projection and greater vigor of modeling." Projection and vigor of modeling were certainly not wanting to the cornice of these two banks.



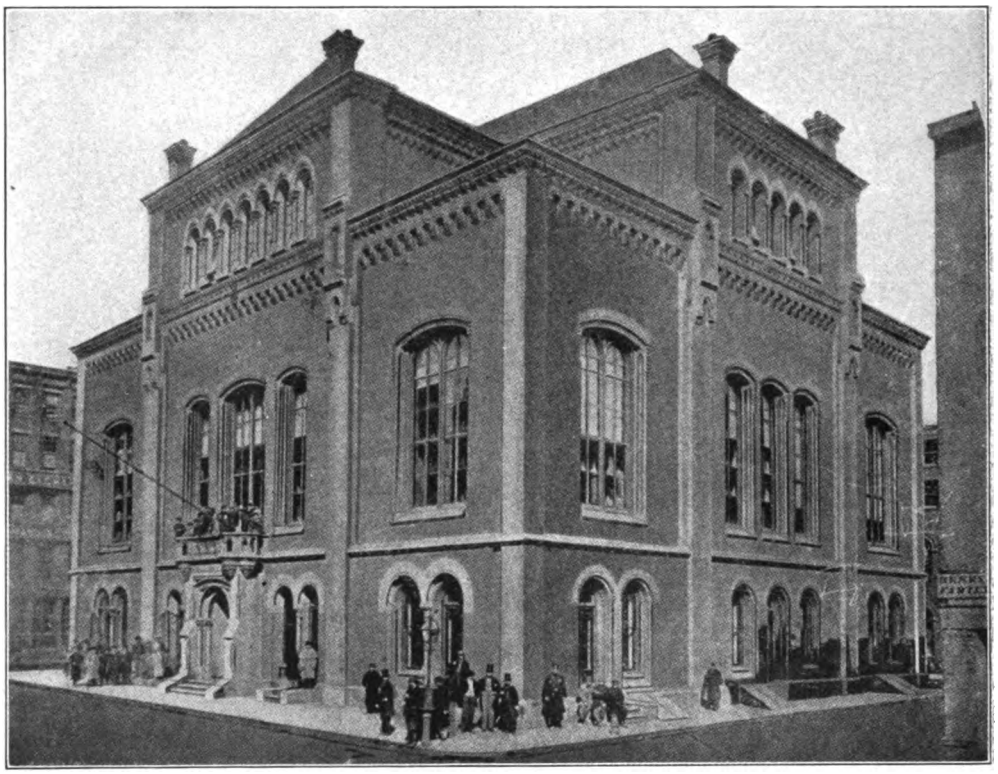
INTERIOR OF ADDITION TO COUNTY COURT HOUSE.
City Hall Park, New York.

Compared with anything that then stood on Broadway, the American Exchange Bank was a great advance. It so impressed itself on an ingenuous and sensitive pilgrim from Cincinnati, Mr. James K. Wilson, who two years or so later reproduced its essential qualities in a warehouse in that city, reproduced them with improvements. The cornice seems at first sight to be identical in the two, but that is not quite the case. It is intelligently modified by the light furnished from studying the prototype in actual execution. The architect of the later building had a larger area than the earlier at his disposition, and employed it effectively in giving greater detachment and relief to his corner pavilions, while his ground floor, being that of a warehouse and not a bank, owes nothing to the prototype, and is as original as it is effective. Indeed, at every point he seems to have bettered his instruction. The later building has shared the fate

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of the earlier in being demolished, or at least altered beyond recognition, and survives now only in this photograph sent to the architect of the earlier as an act of homage.

The Continental Bank was its author's second essay in commercial building. There could be no question that, architecturally, the second showed a very great advance. The appearance of massiveness and solidity is common to both. And indeed the reality of those qualities everybody will agree. Mr. Sturgis not long ago in these pages gave a very interesting account of the treatment of the interior detail, and of the devices to which the architect resorted in a task in some respects unprecedented. The outcome was a framework of iron supports carrying ceilings of stone slabs, the supports and the soffits of the ceiling being decorated after their respective kinds. The effect was as satisfactory as it was novel and striking. It may still be seen, in spite of the demolition of the buildings in which it first appeared, in the interior of Mr. Eidlitz's addition to the Tweed court house, although here the supports and frames as well as the panels are of stonework. Gaertner's Bavarian revival of the Romanesque was, in some ways, the starting point of Eidlitz's architecture. New York contains a tolerable specimen of it in the Astor Library of Alexander Saeltzer, which dates from 1850. Fergusson has criticised Gaertner's version of it, fairly enough, as "wanting eyebrows." Nobody could criticise either of these buildings on that ground. Contrariwise they show what Ruskin, speaking of the Palazzo Vecchio in Florence calls "a solemn frown of projection." "A mere projecting shelf,"



THE OLD PRODUCE EXCHANGE (1860-85).
Whitehall Street, New York.

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adds Ruskin, "is not enough, the whole wall must, Jupiter-like, nod as well as frown." The whole wall of the Continental Bank did, even in those days, when, although by no means the slit of a canyon it has since become, Nassau Street was already a lane, visibly inadequate to the traffic that traversed it and the mere five-story buildings that bordered it, "nod as well as frown" across the lane, from the opposite side of which the crowning and frowning cornice could not be viewed but at a very steep angle. And the effect of massiveness and solidity was attained, virtually, by the employment and exploitation of one dimension, the dimension of thickness. The front, next adjoining on the north, was possibly built for, and, at any rate, was long occupied by the banking house of Duncan, Sherman & Company, and was designed by Alexander Saeltzer, who, for this occasion, dropped in a friendly way into Renaissance, producing a florid front, loaded with projecting bad carving in brownstone, of garlands, cornucopias and so forth. The building committee of the Continental Bank had solemnly warned their young architect not to attempt to outrival these things by still more pronounced projections of mechanical irrelevancies, and had been comforted by his assurance that he would project nothing beyond the plane of the wall. So, indeed, he did not, barring the string courses between the stories, and, barring the cornice, respecting which he had some trouble with the "Fire Warden," who was the "Building Department" of the period, who had his doubts about that cornice, and whom the architect was forced to placate by the only method by which he was plac-



THE ACADEMY OF MUSIC, BROOKLYN, N. Y.
(Erected 1860, destroyed by fire 1903.)

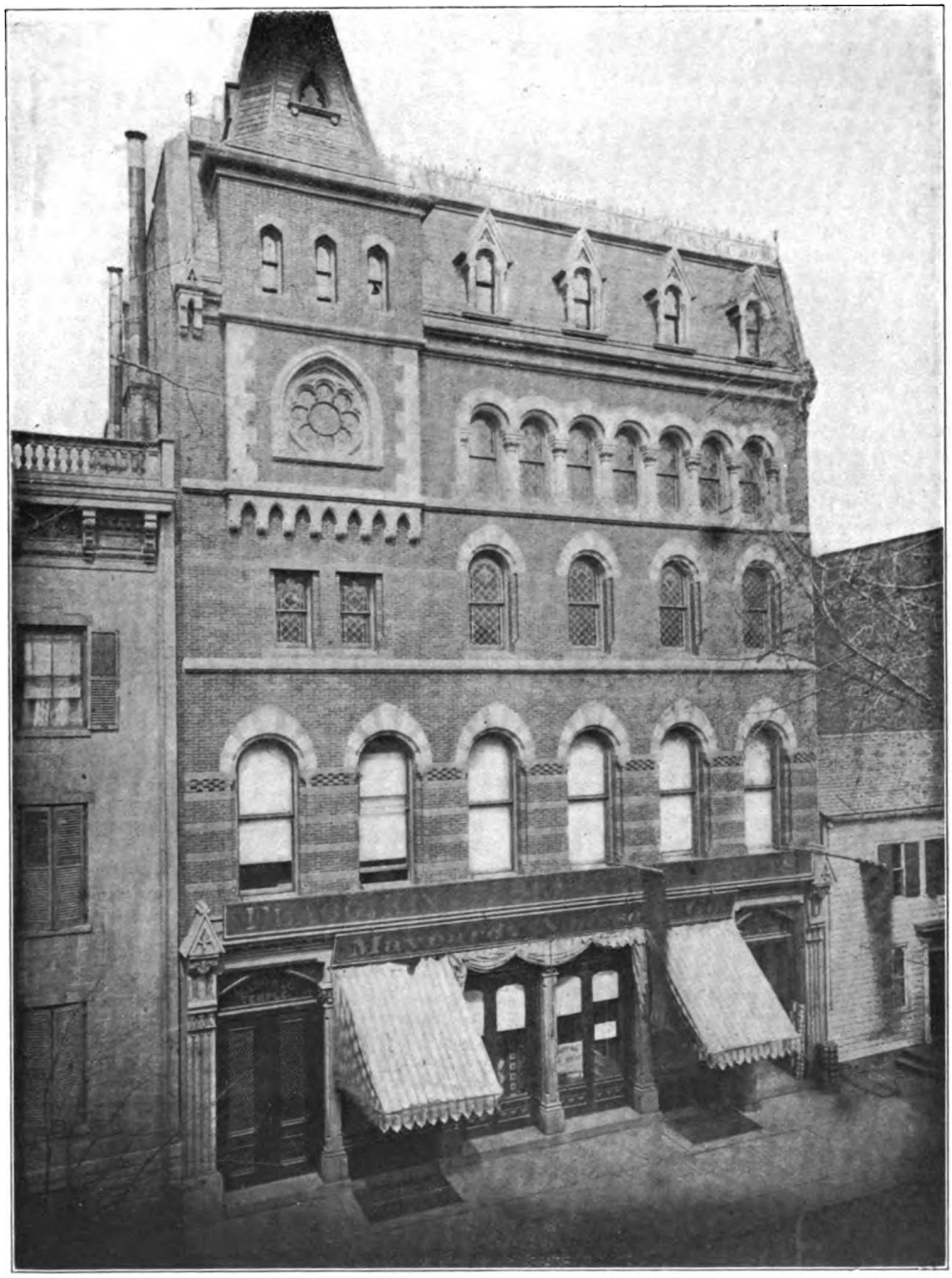
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able. The architect merely modeled the depth of the walls, modelled it into what is so happily called in technical language the "reveals." But how happily it was modelled. I wish for the benefit of those who have never seen or have forgotten, the front as it was, that there were a better and more "revealing" photograph to show them. But it "jumped to the eyes" in the actual structure, what they have painfully to infer from the imperfect photograph, that the thickness of the wall was not only admirably and rationally modelled, with detail multiplied and enriched as it rose, but that the main vertical lines of the front were developed and ramified from bottom to top, until they were merged in the attic and the cornice, which constituted a single feature. And all this in a front which, in mere elevation, was "skeletonized" to the irreducible minimum of masonry. I am afraid that the janitor's family, which occupied the attic—cum—cornice, and looked out on life through mere slits of lancet in each bay, had reason to complain that they were sacrified to architecture. At any rate, when this upper story, in the late seventies or early eighties, became available for tenantry, the triplets of lancets, like the poor wreathed bullseyes of the poor old Astor House, had to be "reamed out" to more available square windows, and a seventh story was superadded, to the entire artistic destruction of the beautiful front, with incongruous superadditions which, no doubt, the superadder held to be "pure Gothic."

* * *

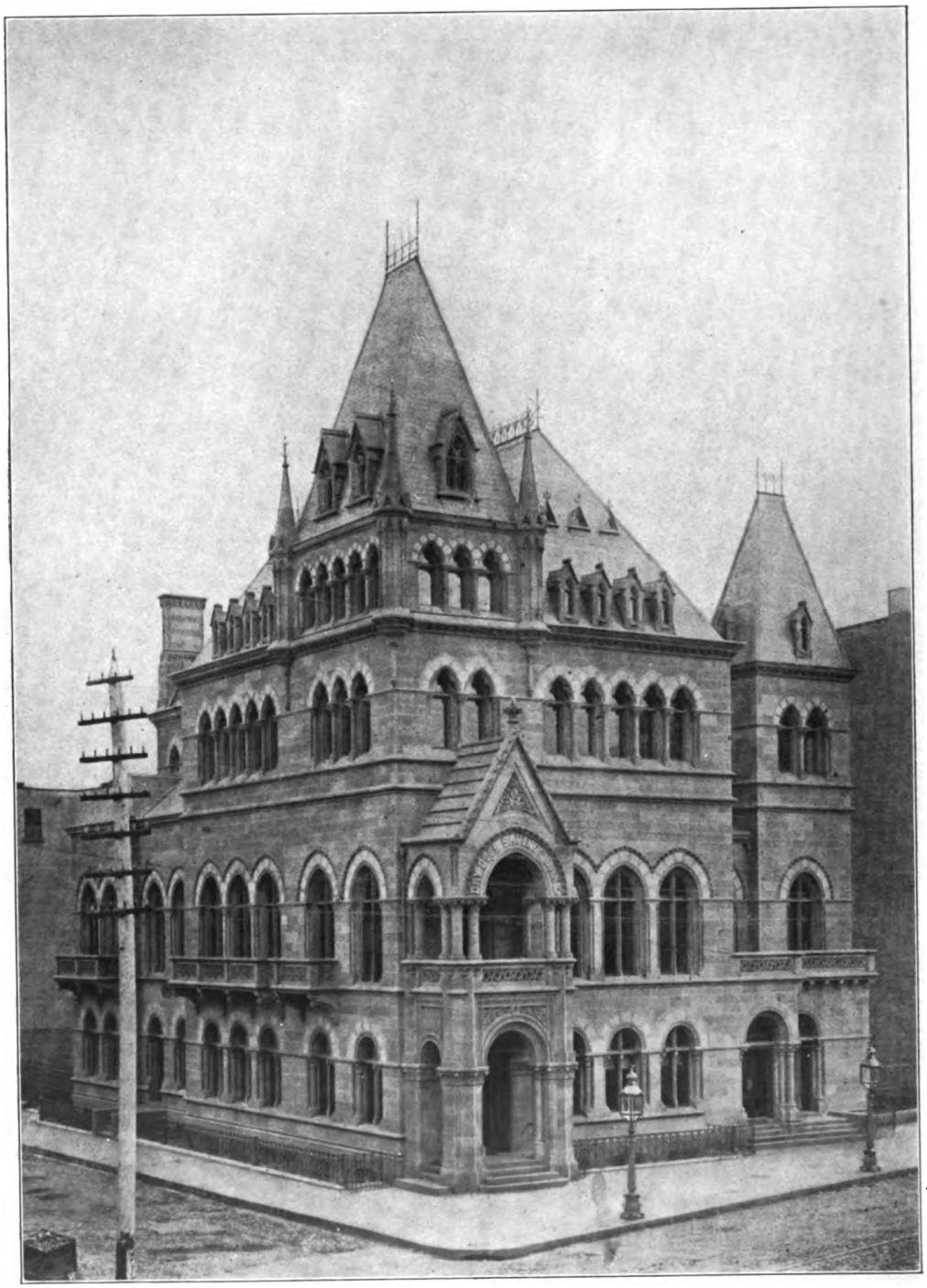
Almost or quite concurrently with these banks their architect was doing more ambitious and more "institutional" structures. It is a great architectural pity that the old Produce Exchange should have been outgrown. It consisted of the Exchange room itself with subordinate rooms underneath at first rented out for offices, but afterwards knocked into one to meet the need of additional room for the Exchange, with the result, in the way of intolerably bad ventilation, that was to be expected and that formed one of the most cogent motives for the abandonment of the building. That the building was "Gothic" hardly occurred to the untutored observer, and certainly he was unaware that it was "German Gothic." In fact, the only badges of the style were the entrances, the cappings and corbels of the projections by which the piers were carried past the main cornice, and the detail of the arcades above. For the rest, and inside as well as out, the building seemed to have made itself out of the materials and the conditions. The interior was quite as interesting as the exterior. I wish a photograph of this interior were extant. It was one of his best. The great hall, abundantly lighted from the sides and the transeptual clerestories, was entirely unobstructed except for the four brownstone piers at the inner angles, sustaining the open-timber roof, and modelled with reference to its framing. The clerestory walls were carried upon iron bowstring girders introduced and shown with perfect frankness. There was a sparing, simple and expressive decoration in color, and inside and out, the building gave, in a higher degree than any other then extant in New York, except of the same authorship, the sense of life and individuality and reality which are among the most desirable as certainly they are among the rarest of architectural qualities. One essential point of the design the cursory observer is apt to miss—that it could be easily overlooked attested the completeness of its success. The site is not a rectangle but a trapezoid, and the double transeptual arrangement is simply a device to dissemble the irregularity. Thereby hangs a little tale of architecture as it was practised in New York in the late 50's. The plans were obtained by competition. Only a day or two before they were to be handed in one of the competitors called on Mr. Eidlitz and asked to see his design, since it could then "make no difference." When it was shown to him he was so impressed with the effectiveness of the device for dissembling the irregularity of the ground plan that he straightway set his office force to work at a plan in which that device reappeared, but bearing, natural-

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BUILDING IN TROY, N. Y. (ABOUT 1865).

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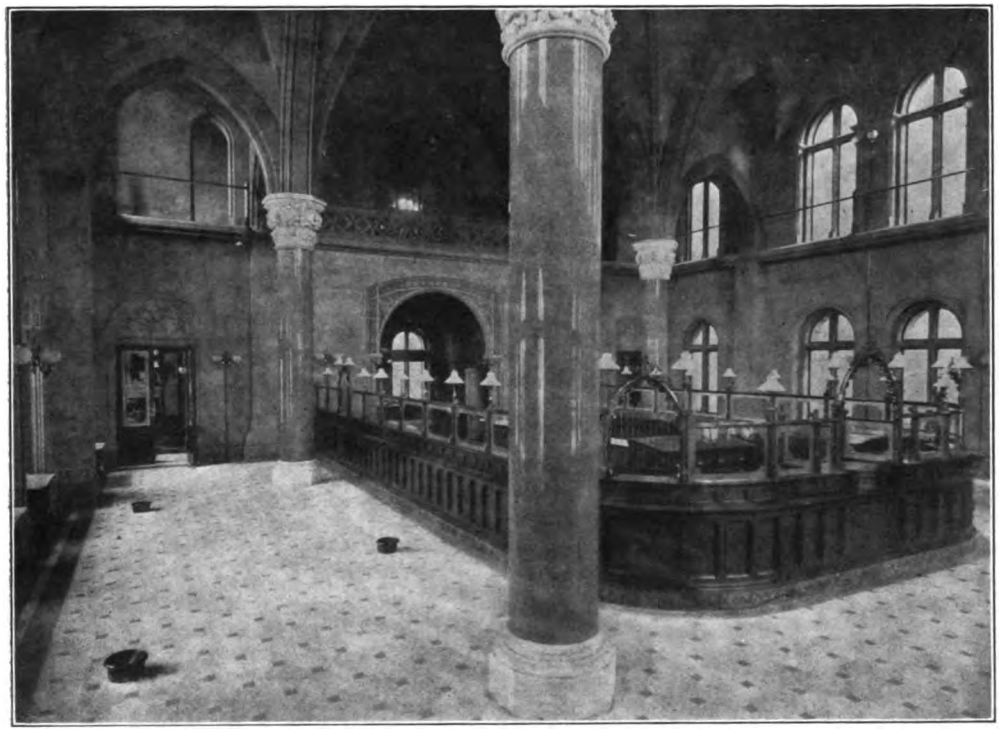
DRY DOCK SAVINGS BANK (1875).

The Bowery, New York.

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ly, such marks of haste and crudity as to put it out of consideration.

The Academy of Music in Brooklyn was its author's most important secular work up to that time. Confined to a single street front, parallel with the axis of the interior, it was an attempt, then novel on this side of the ocean and not common on the other, to express a theatre in its exterior. There cannot be any question of the success, even from the inadequate photograph, taken from the wrong end of the front, which is all I have been able to procure. (The intrusive fire escape is, of course, a subsequent addition.) The popular success was immediate and decisive and the people of Brooklyn became and remained very proud of the place which for a generation was the centre and focus of their civic life, a function for which the very successful accoustics of the interior especially fitted it. The unusual expanse of the street front is relieved of monotony by the expression of each of its component parts, the green-room, the stage, the auditorium, the foyer, and it is full of character. That it is not an expression of the special character of a theatre was an early criticism. There is, indeed, something severe and almost monastic about the long front, with such sparing decoration as could be afforded under the conditions, at the ends and especially at the entrance, the further end of the photograph, where the ornament, admirable in its kind and unfailingly placed and "scaled" was wisely concentrated. But blank wall, after all, is that of which the exterior of an auditorium must largely and the exterior of a stage almost exclusively consist, and blank wall, with even a minimum of architectural "treatment," is sure of making its impression. Observe, in a more modern instance, the impressiveness of the buttressed blank wall at the rear of



INTERIOR OF THE DRY DOCK SAVINGS BANK.

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the Metropolitan Opera House in Seventh Avenue, the impressiveness of the unbroken cliff of blank stage wall at the rear of the Hippodrome on Forty-third Street, and note how, for the purpose of breaking it upon the beholder's apathy, these outweight all the "architecture" elsewhere applied with such excellent intentions and to so little effect. The interior, in which the timber construction was exhibited throughout, in spite of the very pretty and rather festal and rather elaborate design and decoration of the proscenium, with its open gallery above, lighted from the ends, was also found by many observers architecturally too "strenuous" for a theatre, if not for an "Academy of Music." "These Brooklyn people," said a ribald Manhattanese who had been allured over to the City of Churches by some special attraction at the Academy, "wanted a theatre which should be as near as possible to a church—where they could hold a religious revival if they wanted to and a Shakespearean revival if they had to." The gibe had its point. But it would be hard to point to one of the successors of the Brooklyn Academy in either city or in any line, and quite hopeless to designate any successor in its own line which shows greater architectural individuality, or as great a power of robust, vigorous and masculine architectural expression.

* * *

The next work of any importance after the very unconventional and necessarily "unchurchly" Church of the Church of the Holy Trinity, was the Dry Dock Savings Bank, which, after a full generation remains so unquestionably the chief architectural ornament of the Bowery. It differed from its predecessors by the same author in being unmistakably and, as one may say, aggressively Gothic. It took an academic classifier to assign the earlier secular works to a style. Indeed they were not of a style, or, if of any, rather classifiable as Romanesque than Gothic. True, the motive of any one of the four fronts of the old Produce Exchange might have been, whether it was or not, suggested by the front of the well known Romanesque church at Minden. True, both that edifice and the Brooklyn Academy of Music bore evidence of their author's admiration of the monuments of the secular German Romanesque, of the Wartburg and of the palace at Gelnhausen. And the banks also could be traced to their originals by a technical expert. One may suppose that



THE OLD DECKER BUILDING.
(1870-91.)
Union Square, New York.

these things had their influence upon that architectural expert and "Teutonic" zealot, Professor Freeman, when he declared that it was Broadway which had convinced him that the proper prototype of modern commercial building was to be sought in the Romanesque. It remained true for the general sensitive but unlearned beholder that these things were not "examples" of anything but free architecture, and that although they

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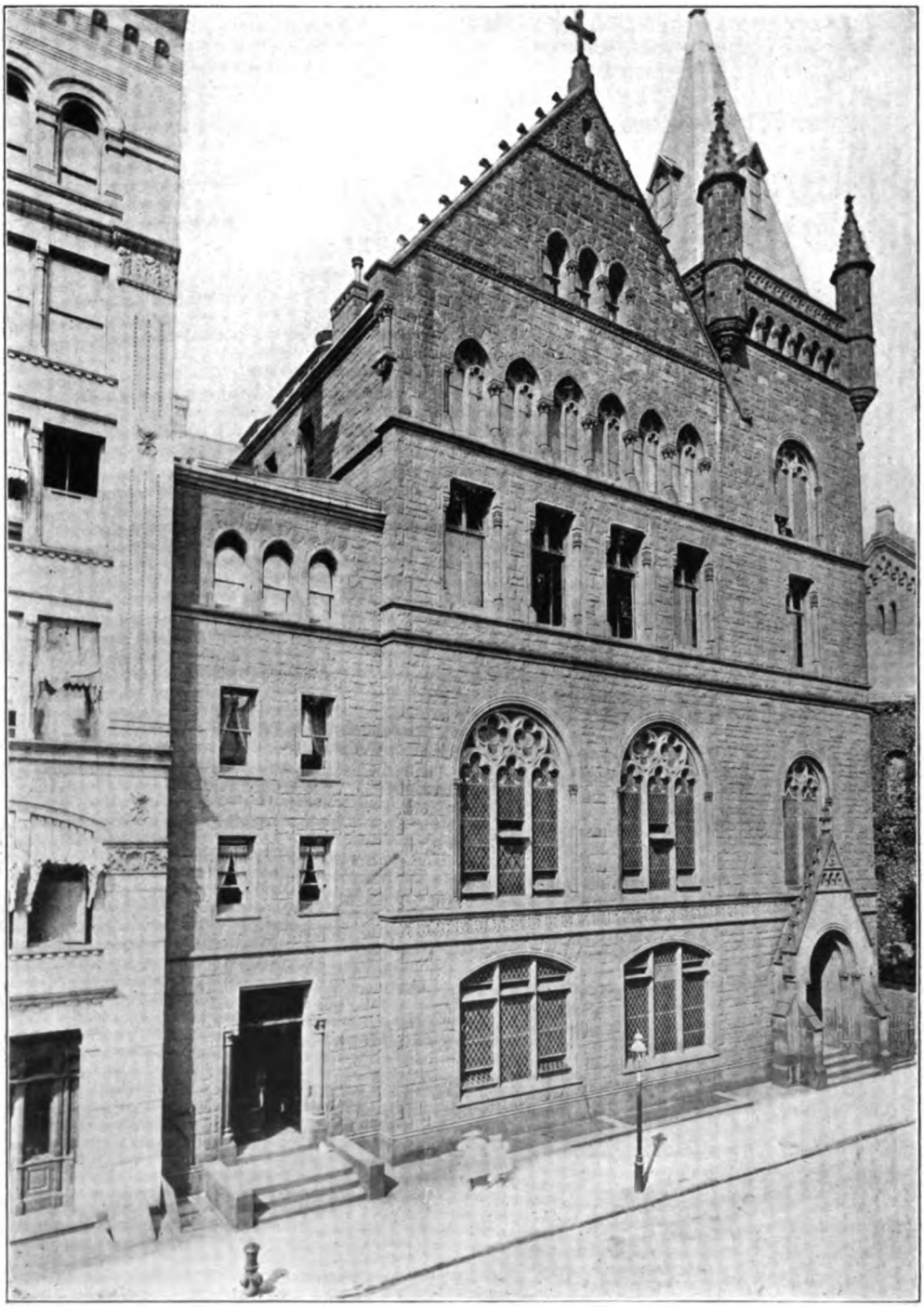
possessed "style," the style was intrinsic and not historical. But the wayfaring man could not be prevented from perceiving that the Dry Dock Bank was "high Gothic," and the ready nomenclator found it quite feasible to dismiss it with the ready criticism that it "looked like a church."



THE BROOKLYN-UNION BUILDING (1869).
Brooklyn, New York.

It had had a partial predecessor, five years before, in that sparkling little Venetian front of the old Decker Building in Union Square, though, in fact it was only the combination of brick and stone and the mild polychromy of the stonework that gave the Venetian look to a front of which the detail owed nothing to North Italy. There is doubtless an infelicity in the superposition of the Mansard over the arcade. There is doubtless another in what the author, even while protesting that the front was not worth talking about, explained to have been to himself its most interesting peculiarity, and that was the attempt to make a cornice all of brickwork hold its own above a front in the less conspicuous members of which hewn stone was rather freely employed. Evidently the attempt was not successful. Excepting these infelicities, it may be

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ST. GEORGE'S CLERGY HOUSE (1887).
East 16th Street, New York.

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said the front was very nearly a model shop front for its own restricted dimensions and in its own kind, the kind of course belonging to the pre-elevator era. How one would like to see a row of such in the commercial quarter of a town, say, of 30,000 people, and how such a row would put to shame the actual commercial building, as, in truth, this little front did put to shame the Western front of the Union Square of 1870.

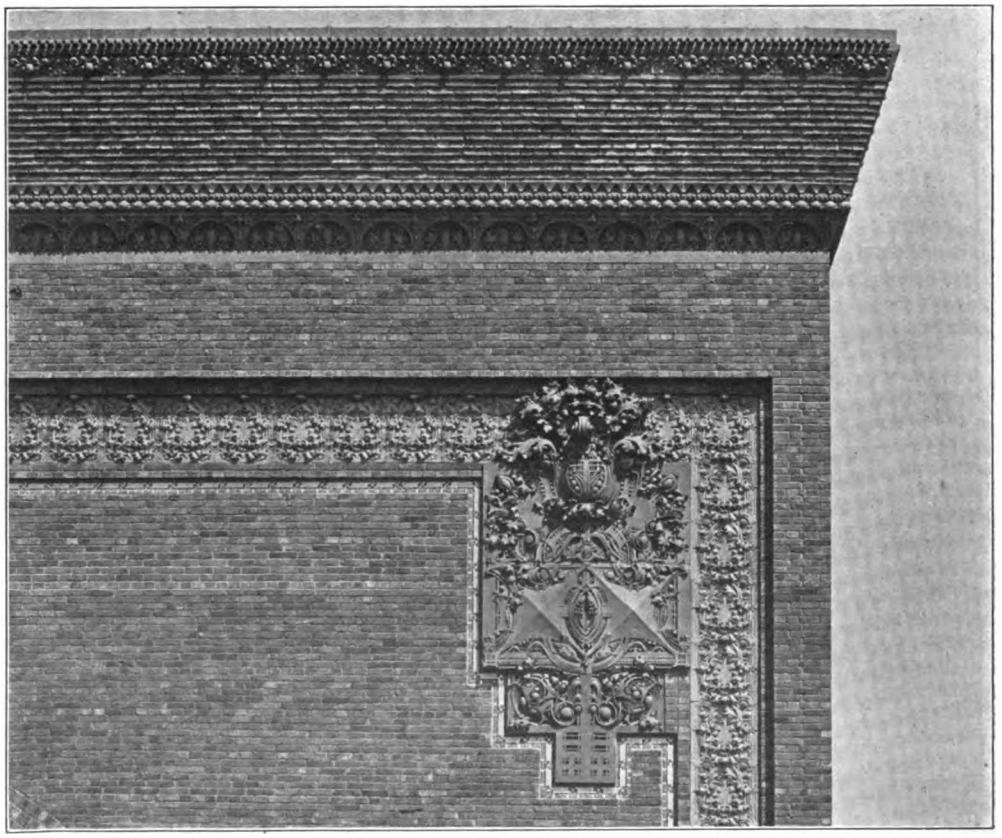
Equally Gothic, evidently, and as equally evidently far more elaborate and important than this opouscule is the bank in the Bowery, which is so far from being a mere "front" that it was evidently composed for the perspective view and that either elevation by itself not only does not do the design justice but does not disclose its motive. This motive is the pyramidization of both fronts to the tower at the corner. Some years afterwards Mr. R. M. Hunt employed the same motive, with such ingenuity and success, in the Gerry house, at the corner of Fifth Avenue and Sixtieth. But in the later case, the assumed point of view, being on the park side of the avenue, and much to the northward of the building, is liable to be missed by the wayfarer who is not especially looking for it, where as nobody walking up or down the Bowery, on either side, can miss the point of the Dry Dock Bank. His particular attention is in fact called to it by the lie of the site, which has an acute angle at the corner whereas the corner of the building is rectangular, and the interval between the building and the building line is filled in part by the two-storied porch, with much addition to the picturesque effect of the pyramidizing mass. When the bank was new a humorous architectural teleologist was demanded the "function" of a balcony in a savings bank, and made prompt answer, "Oh, that is the place where the president comes out to address the depositors when the bank breaks." All the same, in spite of the picturesque success, there is, one sees on reconsidering the building after so long, a distinct failure of expression. Conversely to the case of St. George's, where the gallery which is a main feature of the interior, is not expressed exteriorly at all, a light gallery which is but a mere passageway around the banking room is here made the pretext of a division into two unmistakably divided stories. It remains true that the large and lofty banking room which, with its lower appendages, in effect constitutes the building, does not sufficiently appear. But the pyramidal mass is so impressive, the relation of voids to solids so effective, the detail so well studied and so well adjusted that the exterior of the bank remains one of the best things in our street architecture. The interior has a still higher interest as the only example on a large scale of groined vaulting in New York, and as the prototype of the Assembly Chamber in Albany which was on so much larger a scale and so far more lavishly carried out. Here a Spartan building committee prevented the architect, to his chagrin, from filling in the panels of the vaulting even with buff brick, and they remain in inexpressive plaster, though the vaulted ceiling nevertheless makes its effect of reality through sheer force of design.

* * *

The late 60's and early 70's beheld our architect diverted into a phase of "artistic engineering," in which the substantive was much more conspicuous than the adjective. The avocation lasted from just after the completion of the Jewish synagogue to the collapse of the Tammany Ring. How he came to encounter Peter B. Sweeny I do not know. But, after this lapse of time, one risks nothing in saying that the "brains" of the Tweed Ring had an ambition much higher than that of most of his associates. He regarded power, however gotten, as a means to other ends than that of gathering dollars without any olfactory investigation of their origin. He had an ambition to leave monuments of public utility behind him and to "plant things that were like to last," And, in this ambition, when he met Leopold Eidlitz, he met a man after his own heart. Then, as ever since, perhaps more acutely than ever since, "rapid

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transit" was the indispensable condition of the expansion of New York, and Mr. Sweeny had the honorable desire to associate his name and memory with the satisfaction of that crying need. There was associated with Mr. Eidlitz another engineer, General Serrell, of more experience in railroad building. I have always supposed that the monumental scheme of buying a right of way through blocks, asking the public only to grant the right of crossing the streets, and thus of constructing the road at the most convenient and economical grades, instead of following the casual undulations of the terrain, was Mr. Eidlitz's own. At any rate, he entered heart and soul into the work, and was ready to point out to the frequent objector to his scheme upon the ground of its inordinate cost that the longer the city waited the costlier it would be, while some such scheme was the only real and permanent solution of the question of rapid transit. It was, in fact, according to him, a sort of Sybilline proposition that the city, as an aggregation of landholders, was making to the city, as a municipality, a proposition becoming more "prohibitive" as the acceptance of it was delayed. To quite another class of objectors, represented, so far as I know, by the present writer exclusively, who reproached him for abandoning architecture for this lucrative and utilitarian employment, he triumphantly rejoined by enumerating the architectural opportunities in the way of bridges and stations which the Viaduct would afford. The only one of these opportunities that took shape, even in drawings, before the fall of the Ring submerged the whole project in its ruins, was a sketch for a huge steep-roofed station at the eastern end of the Brooklyn-East River Bridge, then already projected, and the southern terminal of the Viaduct or of one of its branches, which sketch got the length of publication in the illustrated papers.



NATIONAL FARMERS' BANK OF OWATONNA, MINN.—DETAIL OF MAIN MASS.
Louis H. Sullivan, Architect.

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Architectural Ethics

The Case of the Ottawa Terminal Station and Hotel

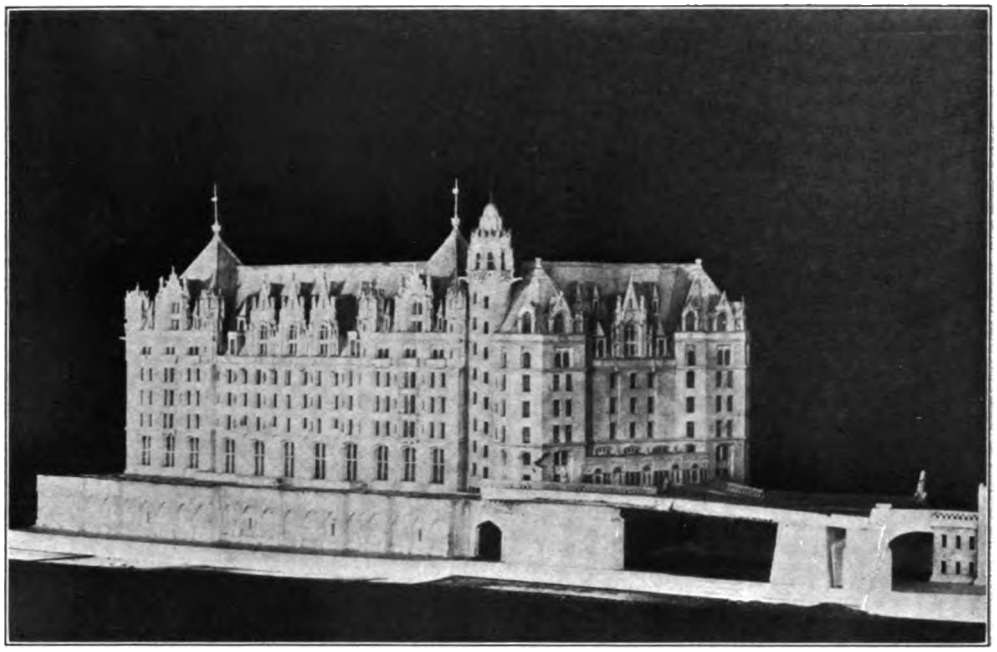
An interesting and peculiar situation has arisen out of the laudable purpose of the Grand Trunk Railway Company, instigated by the Canadian Premier, to provide for the Capital of Canada new and greatly enlarged terminal facilities. These were intended to consist of a Union Station and of a Station Hotel. In the course of execution, the completion of which it has not yet nearly approached, this project has furnished questions of interest and concern for the Architectural profession in the Dominion, in the United States, and in the United Kingdom, for the municipal government of Ottawa, and for the Government of Canada. To present these questions, it is unnecessary to characterize. It is necessary only to describe. As a great Englishman has said: "Strong facts do not need strong language." As a great American has said: "Let facts be submitted to a candid world."

When the Grand Trunk Railway conceived the notion of the new terminal buildings at the Canadian Capital, the "Ottawa Terminals Company" was formed "ad hoc." But the presiding genius of both companies was Mr. C. M. Hays, Second Vice-President and General Manager of the Grand Trunk. The selection of an architect seems to have been a simple matter. Mr. Bradford Lee Gilbert, by reason of an unusual, if not unequalled, experience in railroad work, as the author of the Twelfth Street Terminal in Chicago, as the reconstructor of the Grand Central in New York, according to the scheme as now executed (although under a succeeding administration the details of the waiting room were altered from those of his design) and as the architect of the terminals in the city of Mexico, at Atlanta and Concord in the States, and at Halifax in the Dominion, appeared to "impose himself" for this particular work. He was accordingly engaged as architect, to design and superintend the erection of the Terminal Station and its appurtenances and of the Terminal Hotel, the "Chateau Laurier."

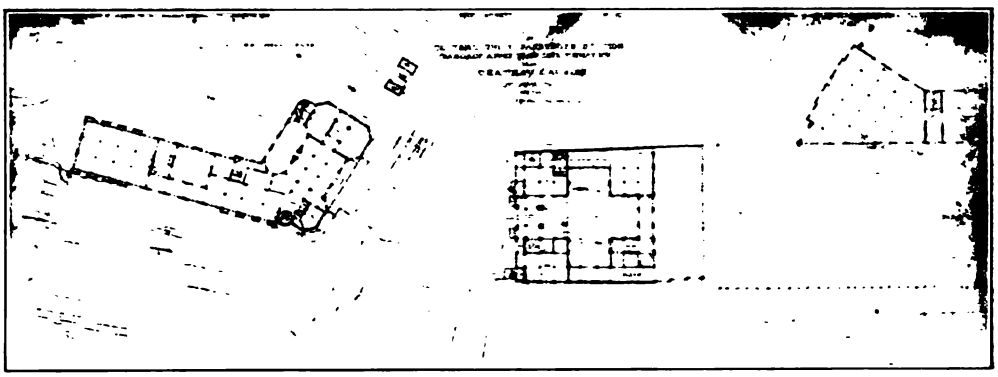
The Station was at first intended for a different site, and was acordingly designed in classic architecture. But it was all along recognized that the ideally desirable site for both Station and Hotel was the plateau along the easterly side of the Rideau Canal, affording an outlook northwesterly, down the ravine of the canal, more westerly and more nearly opposite over the Ottawa River, and, closer at hand, a view upward to the Parliament Buildings on a higher plateau. That was the site in fact which, more than a generation ago, when the Federation of Canada had just become an accomplished fact, and the selection of Ottawa as the Capital had just been made sure, had been reserved for the Capitoline Buildings of the new Dominion, as the most commanding that the Capital afforded. But to the acquisition of this site there were obstacles apparently insuperable. The reservation for the public buildings had been wisely extended so as to comprise the lower plateau and to preserve it from private and possibly unsightly occupation, securing the predominance and the visibility of the Government Buildings. These were, upon the whole, worthy of their eminence, their conspicuousness and their isolation, a commanding and picturesque group. It was the clear duty of the Dominion's authorities not to brook any competing or conflicting occupation of the "Ordnance Land" reserved expressly to prevent such a conflict. The land on the right bank of the canal had in fact been laid out as a public park, "Major's Hill Park," from the walks of which the visitor could get continual glimpses, across the ravine and above the scarp of the bluff, of the picturesque group of buildings "set on a hill," and of a projected range of Government buildings on the other side of

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the park. It would have been little less than a crime to mar this admirable arrangement, little less than a crime on the part of its official custodians to consent to the disfigurement of it. The ing the hotel in the park itself were so manifest that Mr. Gilbert at once addressed himself to the task of making of the two great buildings of his project what may be called the "Propylaea" of



ORIGINAL DESIGN FOR STATION HOTEL, "CHATEAU LAURIER."
Ottawa, Canada. Bradford L. Gilbert, Architect.



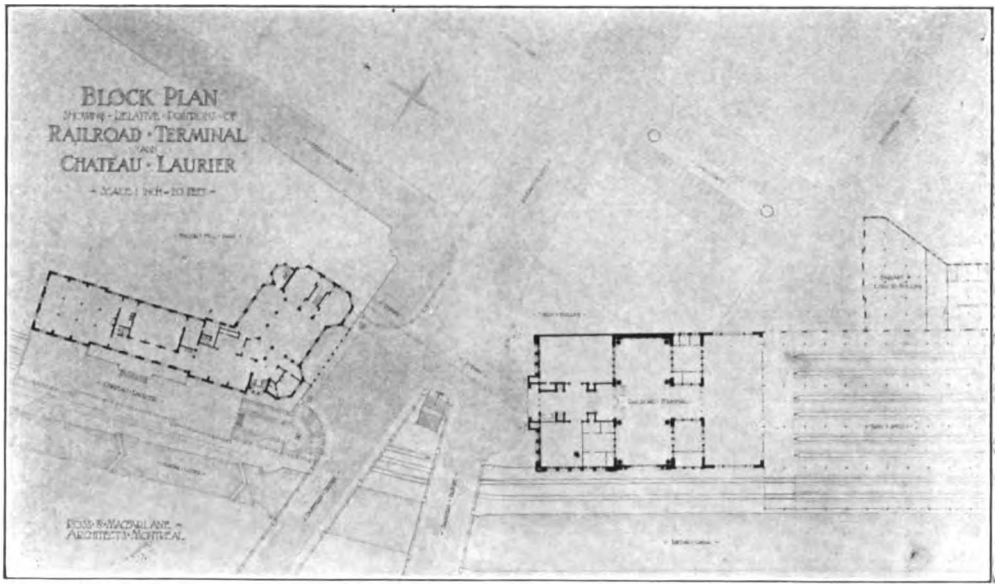
ORIGINAL BLOCK PLAN FOR TERMINAL STATION AND HOTEL.
Ottawa, Canada. Bradford L. Gilbert, Architect.

railroad people had in fact given up hope of being permitted to occupy any portion of this park. But the advantage of placing the Station on the site originally chosen for the hotel, and of building the Canadian Capital and of harmonizing them with the buildings of what may be called its "Acropolis." To this end he discarded the classic design devised for the Station, as originally intended

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"NEW" DESIGN FOR STATION HOTEL, "CHATEAU LAURIER."
Ottawa, Canada. Ross & Macfarlane, Architects.

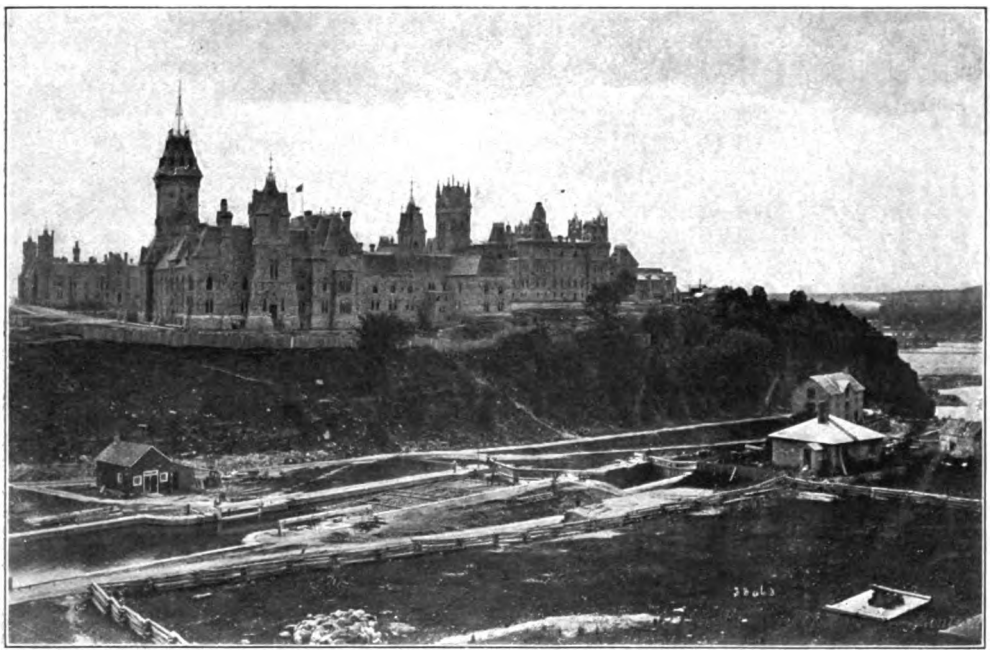


"NEW" BLOCK PLAN FOR TERMINAL STATION AND HOTEL.
Ottawa, Canada. Ross & Macfarlane, Architects.

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for a site around the corner and outside of the great group. Associating with himself, for this purpose, one of the most distinguished of American designers of Gothic detail, he produced designs for the two buildings in harmony with the buildings that were to be seen above and opposite, and arranged to sink the tracks out of sight, and also to screen with his Station the rather unsightly buildings of private ownership and occupation that were already in view and beyond the hope of the officers of the company, gave consent to the erection of the hotel in the park, and thus enabled the construction of the Station on the site originally chosen for the hotel.

Why the corporation whose architect had obtained for it this unhoped for success should do anything but vote him thanks and tell him to go on with the good work does not at first glance at all appear. As Thackeray remarks, "The milk of the cocoanut has often refreshed



THE GOVERNMENT BUILDINGS AT OTTAWA, CANADA (1865).—GENERAL VIEW FROM MAJOR'S HILL PARK.

Thomas Fuller, Architect.

the still more unsightly ones that might be apprehended in the future. No architect needs to be told that this layout on an irregular site and on uneven ground was the gist of the design, the thing over which the designer must "sweat blood;" that if he succeeded in accomplishing this his design was successful, and that the architect who did this was the real author of the design, whatever subsequent changes of detail might be made in his work.

The design was so successful that the Government of the Dominion, quite be- the traveler and perplexed the natural philosopher." But the presence of the milk in this particular cocoanut is easily explicable. The Terminals Company had asked the city of Ottawa for a "fixed assessment" on their new buildings, to obtain which they were obliged to guarantee a certain value. Moreover, there was local opposition to placing the hotel in the park. To comply with the requirements and to conciliate the opposition, Vice-President Hays assured a deputation from the City Council which met him in the office of the Premier, Sir

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Wilfred Laurier, that the Station was to cost a million and the hotel a million and a half, that these two millions and a half had been appropriated by the directors, and that the decision to spend this amount on the improvement was "final and irrevocable." This announcement conciliated the opposition and produced a ratification by the municipality of the arrangement proposed by the Terminals Company. Mr. Gilbert's estimates had in fact footed up $2,370,000. "But," and this is a most pregnant "but," after Mr. Hays had secured the agreement of the Governor-in-Council to the execution of the plans, and that of the City Council of Ottawa on the score of the "final and irrevocable decision" of his company to spend $2,500,000 on the improvement of Ottawa to the "fixed assessment"—after these things were secured, and six days before the plans were to be submitted to the City Council for final adoption, he instructed his architect by telegraph, to cut down the plans so as to save a million dollars. This was done, as it had to be, by such drastic measures as the omission of entire stories from each of the buildings, to their grievous injury, practical and architectural. When the revised plans were submitted to the City Council, February 14, 1908, the change did not escape notice, and an observant Councilman inquired whether these plans would cost $2,500,000 to execute. Mr. Kelley, the Chief Engineer of the road, who had them in charge, admitted that they would not, but explained the discrepancy by saying that the Architect had "exceeded his instructions," though it does not appear that he undertook to explain the discrepancy between the million and a half plans and the two million and a half "final and irrevocable decision." But the architect, who happened to be present, promptly resented and exposed the misstatement regarding himself. The occurrence of the lacteal fluid in the nuclear cavity is thus not only explicable. It is explained. The presentation of plans which would cost but a million and half, by a corporation which had announced its "final and irrevocable" purpose to spend two millions and a half was a circumstance which, when once noted, required explanation. It was the pliant architect who was relied upon to furnish this difficult explanation. When he declined to certify that plans out of which he had just cut a million dollars would cost the amount of his original estimate, and when he showed hesitation about galloping into the wilderness as a scapegoat, laden with all the incompatibilities of statement of the officers of the Grand Trunk and the Ottawa Terminals, then these august corporations had no further use for so unpliant a designer. Exit, accordingly, at this point, Mr. Bradford Lee Gilbert. Enter, accordingly, only a little later, that egregious Canadian architectural firm, Messrs. Ross & Macfarlane.

Only a little later. For the hearing before the City Council at Ottawa at which Mr. Gilbert had displayed his incompatibility with the requirements of the projectors, his employers, was on February 14, 1908. And it was on May 15th that the elastic and undiscouraged Vice-President Hays re-bobbed up serenely before the City Council of Ottawa with a "new" set of plans, estimated to cost "for the hotel and appurtenances something in excess of $1,500,000," and for the station, "about $525,000." "The plans," he gracefully adds, "are presented by our architects, Messrs. Ross & Macfarlane, of Montreal."

Remarkable "new" plans they are. What is most remarkable about them is that, in the intervals between February 14th and May 15th the lightning-like intuition of these British architects had not only traversed the entire field over which the slower-witted American Architect had been painfully plodding for the better part of two years, but in the briefer space they had reached identically the same conclusion as his! As to the hotel, indeed, the cheerful Hays set forth, "it is substantially in accordance with the plans and models which have been heretofore presented and which I understand were satisfactory." Not quite identical, for our "new" architects have had the happy thought, for example, of turning all the bathrooms inward upon a dark corridor instead of

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giving them outside light and air. Not quite identical exteriorly, for they have here had the happy thought of cheapening the execution at the trifling sacrifice of the artistic character of the detail. As to the plans for the station, which, the Vice-President sets forth "are more appropriate in their design and appearance than those heretofore produced," the appropriateness is far less clear than the appropriation. For in effect, the "new" station is an amalgam of Mr. Gilbert's ground plan and arrangement with the "classic" mask which he had originally intended for the station on another site, but had found himself forced to discard when the station was to become a member of an architectural group already committed to Gothic.

There is no use in quibbling about details. We have said that no architect could fail to see that the general lay-out, on so irregular a terrain, and with the necessity of conciliating the new buildings with previous erections, was the gist of the design. No layman, with the photograph of the Government Buildings before him, can fail to see that the block-plan is in fact the design, that the block-plans are identical, that the author of the earlier is unquestionably the architect of the work and that the draughtsmen of the later, the "new" architects, are—what shall we say? What can we say, seeing we have promised not to use "language"? Ancient Pistol may help us out:

"Convey," the wise it call "steal," foh, a fico for the phrase.

Marry, we have fallen in with an egregious firm of Canadian conveyancers. They have not added to what they found the infinitesimal fraction of an architectural idea. If this be "architecture" a supply of tracing paper and a brazen front are the main requisites for the practice of that noble art.

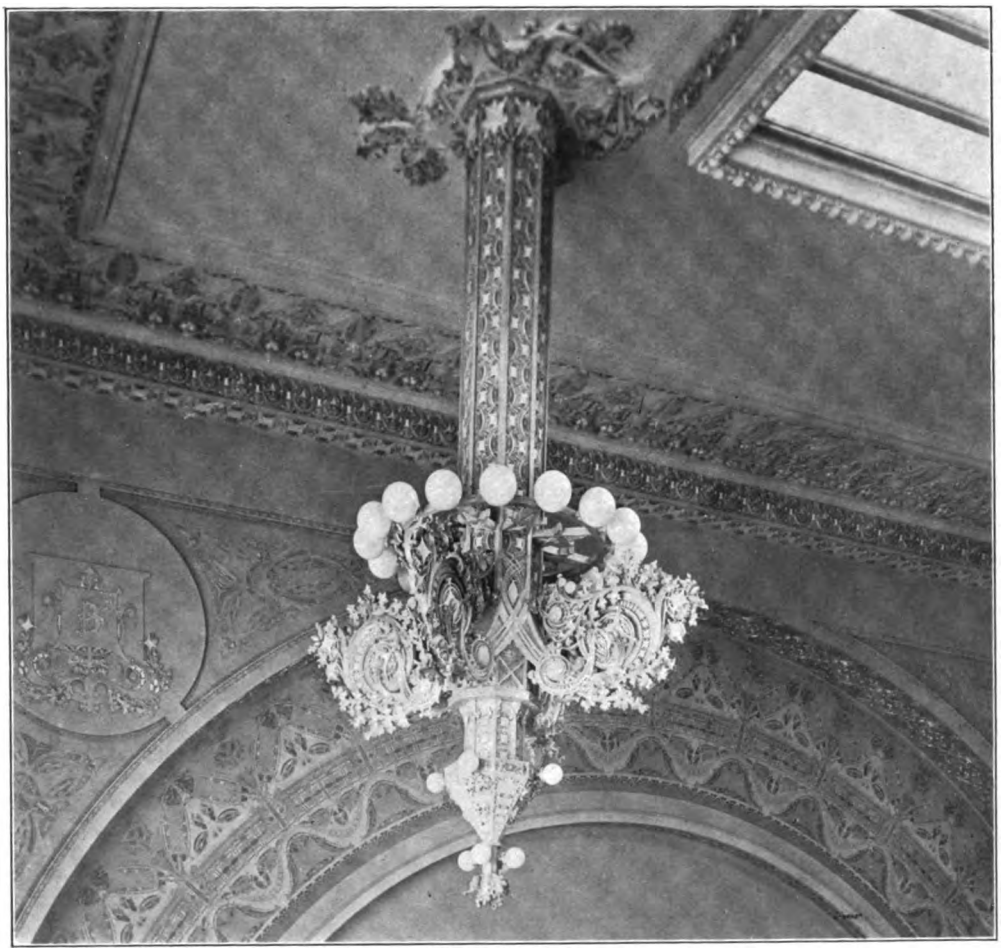
Readers of Charles Reade's "Hard Cash" will remember how the American inventor, Joshua Fullalove, got justice in a British court, according to his own account "against a varmint that was breaking the seventh and eighth Commandments over me, adulterating my patent and then stealing it. Blast him!" Here is another American inventor who it seems must appeal to British justice from a similar injury, though he would probably not express himself in similar language. Doubtless the Canadian courts will do him justice upon the officials who seem quite shamelessly to have broken their contract with him. But how about the Canadian architects who have lent themselves to the purposes of these officials and put their own names to plans with the authorship of which they had nothing whatever to do, and of the real authorship of which they were fully apprised by stamps upon the plans that they were—well, "conveyancing?" The senior member of the conveyancing firm is, it appears, an Associate of the Royal Institute of British Architects, which undertakes to discipline any member "contravening the Declaration signed by him or conducting himself in a manner, which, in the opinion of the Council is inconsistent with the profession of an Architect." It would be interesting to know whether the act of signing another architect's plans is, in the opinion of the Council, "consistent with the profession of an Architect" and altogether amazing to learn that it is so. The junior conveyancer is, it seems, at least responsible to the Province of Quebec Association of Architects. Paragraph No. 5 of "The Professional Duties of the Architect toward his Fellow Members" of that Association says: "An architect shall abstain from plagiarism from his fellow member. * * * He must not seek to acquire the position or patronage enjoyed by a brother architect. So it seems that the case of the conveyancers may be intrusted to the professional tribunals, British and Canadian, with as much confidence as that of the muborners of conveyancing to the Canadian courts of justice.

It is but fair to point out that there is no "international" moral to be drawn from this story. While it is true that Messrs. Ross & MacFarlane are ornaments to the British Empire, it is equally true that Vice-President Hays and Vice-President Fitzhugh and Chief Engineer Kelley, who were associated with him in

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these transactions, decorate the citizenship of the United States. Internationally speaking, dishonors appear to be fairly divided.

It is fair also to suppose that the attention of the municipal government of Ottawa and of the general Government of Canada will be drawn to the present phase of the matter. The former would be apt to resent the attempt to trick it into granting a "fixed assessment" to a project so far cheapened from that to which it gave assent. The latter will be apt to enquire very curiously whether the consent which it gave for a noble group harmonizing with its own buildings shall stand when the buildings for which it gave consent to the erection in a public park has been cheapened to the extent of being architecturally degraded, and when the "group" has become a higgledy-piggledy.



NATIONAL FARMERS' BANK OF OWATONNA, MINN.—ELECTROLIER.
Louis H. Sullivan, Architect.

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To Curb the Skyscraper

It is immensely to the credit of the architects that while as individuals they may seem to have almost the most direct interest in the failure to restrict the height of buildings, as a body they are the only source from which have proceeded any practical measures for restriction. The plan which Mr. Ernest Flagg has worked out in detail, and to which the adhesion has been secured of the New York Chapter of the American Institute of Architects, has been outlined in the daily press. The principle upon which it proceeds, that of penalizing the carrying beyond a certain height of the whole bulk of a building, or of premiating by an allowance of increased height its recession as it rises, is simple enough and was first, we believe, proposed some years ago by Mr. George B. Post. But it has not before been worked out in the same way, or in such detail. Mr. Flagg proposes, in the first place, that no building which covers more than three-quarters of the entire plot on which it stands shall be allowed to exceed 100 feet in height. For the remaining quarter of the plot he would impose no restriction in height, excepting that the height mentioned shall not be exceeded within a distance from the front equal to that from the building line to the curb line; that is to say, to the width of the sidewalk. Third (we quote from a published summary of his proposal), "he would allow the purchase and sale between adjoining owners of the right to build high within the limit stated." Finally, he would require absolute incombustibility in all the material and equipment of buildings that went above the first limit, and that all their visible sides should be "treated architecturally."

Without doubt the result would be a great improvement in the aspect of New York. The limitation to 100 feet, or eight stories, say, would automatically restore to our business streets the cornice line which in old times, before the passenger elevator, was automatically imposed by the five stories which were the maximum that a visitor or tenant could be expected to climb. And the new cornice line would be only half as high again as the old. For the rest, as has been promptly foreseen, the regulation would make New York "A City of Towers." It does not follow that it would be "a tiara of proud towers." You may prescribe that all the sides of your tall building shall be "treated architecturally," and the prescription is reasonable. But to make your tall building a sightly or attractive object, this superficial treatment is not sufficient. The aspiring dollar-hunter would continue to protrude stark parallelopipeds into the empyrean, just as he does now. If you were to veneer these with mosaics the amorphous thing would still be amorphous. A collection of these shapelessnesses would not be as sightly; would, in fact, be far less sightly than a grove of factory chimneys, which already taper and have form and so far comeliness. And, although it would be a very good and civic thing if the owners of the parallelopipeds were required to give them form and comeliness, and although such a requirement might be enforced by the prefecture of the Seine, it were a fond imagination that the individualistic New Yorker, whose rampant individualism is, in fact, in this matter, the source of all our woes, would submit to such a limitation of his right to do what he will with his own. The parallelopiped is the form which gives him most space for rental and which can be most cheaply built. To prevent him from building it would seem to him a great outrage. As the American tourist said of the doctrine of eternal punishment, "Our people wouldn't stand it." Possibly Mr. Flagg has taken legal counsel about his proposal that the "easements" of light and air shall be made the subject of bargain between adjoining owners. But it

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looks as if he were getting into deep water. The owner who thinks his neighbor is wronging him by overshadowing him has the remedy of building a "spite skyscraper" to adjoin the other, and making both comparatively unprofitable. The threat of such a skyscraper has been effective in one memorable instance in New York to make the projector come to an understanding and to pay for his privileges. But the aggrieved owner has no other remedy as the law now stands. The law does not recognize property in those easements of light and air which the projector of a skyscraper threatens to monopolize. The Court of Appeals has distinctly set forth that "the English doctrine of 'ancient lights' has no application in New York. It cannot be applied in the growing cities and villages of this country without working the most mischievous consequences." So, if an owner chooses to pay another for the privilege of overshadowing him, it is not to extinguish the other's right that he does so, but to anticipate his spite. Every civilized person must sympathize with Mr. Flagg's object, which is to make a more convenient and attractive city. But one must be allowed to doubt whether his means promise to attain his ends, so counter does his proposal run to the popular way of thinking which has produced the evil which he seeks to cure, a way of thinking, indeed, which is embodied in that law which is in the long run, the registration of custom. All the same, the primary part of the proposal, that which establishes a "cornice line" (since of course almost everybody would build to the limit) and that which promises, by encouraging the rising of a building as it recedes, to do something towards converting the business streets from the gloomy and gusty canyons which they are becoming or threatening to become, may be as practicable as it is praiseworthy.

But now comes a Philadelphia architect of standing and repute, Mr. D. Knickerbocker Boyd, President of the Philadelphia Chapter of the American Institute, with a very different project. He starts with the same notion of penalizing projection and premiating recession. But he works it out to an entirely different result. He proposes a "norm" of once and a quarter the width of the street. But he proposes two methods, varied according to the character of the occupation of the street, by which the public easement in the air and light at the street level may be protected. According to one of them if a builder desires to double the height of his permitted building he must go back from the street for the superstructure by the depth of his substructure, and to triple the height go back again an equal depth for the second superstructure, and so forth, thus producing a series of terraces, of which the lower, and indeed everyone, would be of the height of the old five-story building before the introduction of the elevator. The construction of these terraces, with the employment of the steel frame, would, of course, offer no special difficulties. The other and supplementary scheme aims to secure a widening of the sidewalk with every increase in the height of the building. The owner, according to this, may build his front in one plane if he chooses, instead of in terraces. But in this case he must set back his entire front to a line determined by the intersection of the height of the proposed building and the diagonal from the curb through the end of the norm "produced" and must correspondingly widen the sidewalk in front of the building. But let the propounder of the schemes explain in his own words:

"My scheme is in a sense automatic, and nothing is left to uncertainty. On a small or medium-sized lot it would be impossible to erect a high building or tower, and yet on a lot of ample size the height would always be in vertical proportion to the space occupied by the base of the building. If this scheme, with such modifications as would develop when more fully worked out, should be adopted and given legislative sanction, the result would not be to restrict high buildings, but the erection of them would certainly be discouraged.

"I would limit the initial height, that is to say, the maximum height at the established building line, to one and a quarter times the width of the street. This would give our principal north and south streets, which are 50 feet in width, a 62½ feet high building if erected at the usual building line, which would be equivalent to a six-story building used for residential or office purposes, or a five-story light manufacturing establishment. On our east

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and west streets, such as Walnut and Chestnut, which are 60 feet wide, the height of the building, if erected on the normal building line, could be 75 feet, or just about one-story higher.

"Now, if an imaginary line be drawn from the curb of any of these streets to the top of an imaginary building, the limit of height on the normal building line, and continued into space it becomes the line of restriction that I have spoken of. The diagonal thereby becomes the height line and regulates the front building line as well. It thus becomes apparent at once that to go up one must go back, and it can roughly be figured upon for each additional story in height that two feet must be added to the width of the sidewalk."

Without doubt, either scheme has its attractiveness. By the first, an "institution" which is still not enough of an institution to build its own abode by itself, but must perforce combine its own requirements with those of a real estate speculation, and house a numerous tenantry on the same premises, can signalize itself by a street front which would about reach the cornice line assumed as normal, while the cells which lodge "the pig that pays the rint" are withdrawn, and subordinated accordingly. In so far, that would be architecturally as well as hygienically a benefit. And, under the other scheme, an "important" building of which the importance is manifested in its height would automatically withdraw itself to some plane from which it could be better seen, would, in fact, be forced to construct in front of itself the kind of plaza which every such building ought to have and which so few do have.

But you will observe a great difference between the projects of Mr. Flagg and Mr. Boyd, in their aesthetic purpose and their aesthetic results. What Mr. Flagg has evidently in mind is to "citify," to regularize, in a word, to Parisianize the city to which his plan is applied. In spite of his "tiara of proud towers," or collection of blank stark parallelopipeds, as the case may be, he would restore the skyline of the street fronts of New York, the city of which, of course, he is thinking, and he would retain the plane of that street front, which will automatically preserve itself by reason of the insistence of every builder upon building to the limit of the building line. Mr. Boyd, on the other hand, would apparently welcome diversity and variegation in both these matters. A skyline which is a sierra has no terrors for him, neither has a street front which is a series of ins and outs. He would simply require that every builder should present his "returns" decently clothed and "treated architecturally." Therein, one imagines, he would encounter opposition. The builder who, on one of the streets devoted not to receding terraces, but to fronts in one plane each, but set back according to their respective heights, would apparently, have reason to complain if he chose to build only to the assumed "norm" and his neighbor went back and built higher. Why, he might very plausibly ask, should he be compelled to go to the cost of decorating the return walls of his projecting but humble erection without receiving any benefit therefrom, but merely for the adornment of the court yard of his neighbor who had chosen to build further back and correspondingly higher? And it would be hard to give him a satisfactory answer. It is quite true that the irregularizing of the public streets which the adoption of these two plans would promote might, in the hands of architects of genius, working in irregularly picturesque styles, conceivably result in the beautification of the city to which the plans were applied, and might result in something far more attractive than the actual Philadelphia or the actual New York. But, keeping in view the actual race of architectural practitioners and the reasonable probabilities of our street architecture, a regular cornice line and a street front in a single plane seem to offer a better hope of a desirable result than a sawtoothed skyline and a higgledy piggledy of alignment, accompanied by a frontage of sidewalks of varying width, but so far as concerns the convenience of passengers, limited to the width of the narrowest of them.

It is abundantly evident that something must be done about the skyscrapers if our cities are to remain, or to re-become habitable. And it is only from the body of architects that we can expect any promising propositions to issue. *Montgomery Schuyler.*

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Architectural Aberrations

The New Hoffman House

For these many moons must passers along Broadway and tramps resting for a space in Madison Square have been marveling at the disjecta membra of the new Hoffman House, disjected by the retention of the ancient and honorable Albemarle Hotel standing between them. Truly it has seemed to such of the passers and tramps as were blessed with architectural sensibility that it stood between them "that the plague might be stayed" and the completion of the new and formidable Hoffman House be delayed.

Is there any antiquary to tell how old the Albemarle really is? Those ancient inhabitants who have been taking the occasion of the threatened demolition of the Fifth Avenue Hotel to recall how they had played tag or attended circuses and ridden elephants on its site might advantageously prod their memories about its humbler neighbor, and tell us not only when it was built, but who was the architect of it. For it is manifest that it had an architect. The Fifth Avenue by no means made such a manifestation. There was nothing in its aspect to denote that anybody above the pretensions of the common builder had anything to do with its design. As a matter of fact, the Fifth Avenue had an architect, and the most fashionable architect of his generation it was, Griffith Thomas, to wit, the author of the brownstone fronts on the other side of Madison Square. True, he did not waste any of his brains, such as they were, on the design of the hotel. He simply adjoined and coagulated a number of twenty-five-foot brownstone fronts, five stories high, transformed the veneer from brownstone into white marble, and let it go at that. An amusing instance of the thoughtlessness of the so-called design is that after every third window there is a wider pier of wall than the intermediate piers. In a row of houses this thickening is of course obligatory, by reason of the party wall. In a hotel it has no meaning at all. But it is all the "architecture" the Fifth Avenue had to show, excepting the detail of the window openings, which might have been and probably was taken bodily out of a builder's manual of the period, and excepting the umbrageous sheet-metal cornice.

The Albemarle may have been a little older or a little younger than the Fifth Avenue. Not much of either. It was certainly standing during the Civil War, and as certainly was then new. But even now you cannot help seeing that it had an architect, and that he was of some sensibility and of some cultivation. That was more "evidences of design" than were afforded by any other hotel on Broadway in those days until you got two miles below to the Astor House. Between were the brownstone St. Nicholas and the brownstone Metropolitan, each as innocent of architecture as the Fifth Avenue, and the Prescott House, of which the vulgarity attested the complicity of an outrageous "artchitect" instead of the unpretentious builder. Soon after came the outrageous cast-iron Gilsey House, a few squares above the Albemarle, in which the "artchitect" stood not only confessed, but proclaimed. Until the Hotel Imperial was built the Albemarle had no rival on what then was "upper" and now is "middle" Broadway.

The architectural points of the Albemarle, though few and simple, were decisive. It showed more wall than any other hotel since the Astor House. Moreover, the weight of the wall was in the right places. Standing the whole Broadway front on a sheet of plate glass is a subsequent nuance. As built, it showed the preference of the designer for a wall solidest at the ends and lightest in the middle, as you may still see on the Twenty-fourth Street front, where the ground floor is still architec-

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turally reinforced at the ends. It is true that, above the ground floor, the terminal piers are weak and ineffectual. But you also see that the architect recognized this as a misfortune and tried to dissemble it. And then, vertically, the thing has a beginning, a middle and an end. The beginning is the basement, made as solid as the architect dared to make it. The middle is the four stories, variegated and punctuated with the little balconies, well placed for punctuation and reasonably well designed and with intervals of wall between, which intervals the windows are coupled to "effectuate." The end is the two-story mansard, which also was quite a feat of architecture in the New York of 1860. The fenestration of that Broadway front is, in fact, very good. And the acute angle of the corner is very effectively signalized by the large single opening in each story, with, on either side, a sufficient flank of wall. Truly the thing was quite a wonder in the Broadway of 1860. And among the most recent of the skyscraper hotels, it would be hard to designate one which surpasses it in the article of architectural brains. Whoever did it must have had his sensibilities and his perceptions. For its time, it smacked of Paris "in partibus."



THE NEW HOFFMAN HOUSE AND THE OLD ALBEMARLE HOTEL.
Broadway and 24th Street, New York.

At all events, it is not the kind of thing that the sensitive and perceptive

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observer likes to see treated with "wantonness of insult." And that is just the way in which it has been treated by the projectors of the two fragments of the new Hoffman House which enclose it. The melancholy and ridiculous spectacle which the two towering wings of the modest old caravenserai present violently recalls the Scriptural story of Naboth's vineyard. It does not, indeed, appear that "Jezebel" has intervened in the modern instance. But there is evident intention, on the part of the modern flanker, to make Naboth's quarters too hot to hold him. By strictly legal means, of course, and in the exercise of the riparian owner's rights to do what he wills with his own. As old Coke hath it, the thing has been done "ever under the protection of the law and in the gladsome light of jurisprudence." About the circumvallation there is a circumspection as of the circumcision to avoid legal pains and penalties. But, all the same, the two absurd brick towering parallelopipeds do so overtop, insult, domineer over and threaten poor Naboth, and warn him to get out, that they are tantamount to a public provocation to a breach of the peace. Ahab, coveting Naboth's vineyard, has not scrupled, in his encompassing and overtopping and threatening architecture (if we may use that expression) to indicate to Naboth that he was waiting until he got Naboth extruded in order to complete his nefarious work. The dullest wayfaring man along Broadway, though he might imagine that the instalment of the new Hoffman House, which he sees down the side street, might be complete in itself, could not possibly make that supposition about the instalment on Broadway. For that, as it now stands, is avowedly and outrageously unsymmetrical and lopsided. Let us assume that that vertical slice which contains the big bow-wow portico at the door, the big bow-wow corbelled balcony over, the big bow-wow balcony over the impossible protruding arch, and the big bow-wow broken pediment, relieved against the "attic," means something. This vociferous slice of architecture seems to proclaim a special purpose. The wayfaring man, perceiving this, hypothecates as the special purpose the frontage and expression of a corridor. By the hypothesis the corridor gives upon rooms on both sides. But in present fact there are evidently rooms only on one side. The "feature" manifestly exists in prevision of the time when the machinations of Ahab shall be successful and Naboth's vineyard shall have "fallen in." Could anything be more infuriating to Naboth? Can we not overhear him soliloquizing:

> **Oh, had I you alone**
> **In some region wild and woody,**
> **I would like to punch your head,**
> **Old Solomon Nathan Moody.**

Nay, if Naboth were greatly enough moved to punch the head of Ahab, when he espied him on Broadway, between Twenty-fourth and Twenty-fifth, gloating on the ruin he had wrought, what feeling heart among us, if it were impaneled on the jury, would consent to finding Naboth guilty of any offence whatever? And yet Naboth would be, legally entirely in the wrong, since Ahab, legally, is entirely within his rights in encompassing and overtopping Naboth and putting him under compulsion to sacrifice his holdings at ruinous rates and flee into the wilderness! Evidently the law maxim, "So use your own that you do not injure another," is subject to new and strange interpretations in the New York of 1908!

This sort of thing is going on everywhere and all the time. It is a consequence of "the march of improvement." But here it is done with so peculiar and impudent a cynicism that the instance fairly clamors for notice. Not many modern erections are intrinsically more inartistic and absurd than this of the two wings of the new Hoffman House. And yet what is most flagrant about them is not their intrinsic inartisticality and absurdity, but the brutality with which they hem in and bully the mild, discreet and gentlemanly old edifice between and beneath them. It is a crucial instance of unneighborliness, of want of comity, of "incivism." Wherefore it is worth the affix of a stigma.

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Great Buildings as Described by Great Writers

EDITED BY ALBERT C. PHELPS,
Assistant Professor of Architecture at Cornell University

Literary references to the Parthenon are multitudinous. From Pausanias down, practically every literary man that has visited Athens has recorded his impressions of this great monument. The editor, however, has found nowhere a more helpful appreciation, poetically expressed, than the following extract from *"D'Athènes à Baalbek,"* by Charles Reynaud.

That the writer is not well known to English-speaking people has seemed no adequate reason for excluding the quotation, but a brief biographical note may be acceptable to some of our readers.

Charles Reynaud was born at Vienne (Isère) in 1821, and died at Paris in 1853. He spent a part of his early life at Grenoble, and went to Paris toward the close of the year 1841. The success, in 1843, of *Lucrèce,* the work of one of his compatriots, F. Ponsard, decided his course and caused him to adopt a literary career. In 1844 he made the acquaintance of Emile Augier, and a close friendship grew up between the two. It was about this time that he made a journey to the Orient, of which he published an account under the title, *"D'Athènes à Baalbek,"* in 1846. In 1853 he published a collection of poems, entitled *"Epîtres, Contes et Pastorales."* His career, which promised a most brilliant future, was cut short the same year by pneumonia. After his death his friends collected and published a volume of his poetical works as a monument to his memory.

The following extract shows the author's appreciation of the Parthenon, with a keen analysis of its greatness and a poetic interpretation of its power of appeal. The text necessarily loses something of its beauty in the translation.

II.

The Parthenon

"After passing the propylaea, one discovers, about fifty paces away, the Parthenon. The Parthenon, strange puppet of destiny, has been, thanks to its stupid masters, in turn a Christian church and a mosque. Always more fortunate than most great monuments, it has never lost its religious purpose; it has remained a temple, a sacred edifice, and finally at the present time, succeeding all the cults it has seen pass by, is a religion equally as potent as the others, the religion of art. Here also, as at Jerusalem and Mecca, numerous pilgrims present themselves to render homage to the immortal relics.

"Although the ruins still remaining of the Parthenon give a complete idea of what it was, the first glance does not suffice to convince one of its extreme beauty; one is not sensible on perceiving it of the enthusiasm that is often felt upon viewing monuments very beautiful, but of an inferior order; in a word, one does not experience one of those triumphant emotions that produce astonishment; one appreciates but slowly, with the aid of science, reason and reflection.

"It is a proven fact that to comprehend the highest terms of art, the most perfect masterpieces, it is generally necessary to pass through a certain series of ideas; it is necessary to resign one's self to the progressive march of education. The intelligence submits without knowing it to the labor of development, and, provided it is gifted with that instinct that education does not give, but that it perfects, the ability comes, sometimes slowly, but

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surely, to appreciate art works justly. This can be explained very naturally: that which everywhere strikes the eyes and spirit of the child or man are violent attitudes, declamatory poses, unexpected situations. One is much more apt to submit to impressions of fear, astonishment, fury, than to be sensible to profound effects resulting from simple and severe beauty. Men of talent are much more easily understood than men of genius, because they address themselves more directly to the senses than to the intelligence; because they move the masses by more vulgar means, without being more natural. The manifestations resulting from depth of subject, from its real nature, are less easy to recognize than theatrical effects and animated movement. Finally, art, like other sciences, must be studied in order to arrive at complete knowledge. It is a mistake to attribute to masterpieces the gift of affecting one all at once, of overcoming the spectator; rather, they are the expression of an advanced science, and are difficult to analyze. Long and strenuous labor is necessary in order to appreciate these perfect but subtle beauties; it is necessary to progress by a constant purification of the taste, to put aside all preconceived and distorted ideas, and to turn back to what art has more ethereal and pure in its substance: that is to say, if I may so express myself, exquisite purity of form, delicate expression and profound sentiment, knowledge exalted by nature; in a word, a beautiful ideal.

"We who are accustomed to the colossal dimensions of Gothic churches, to the capricious curvature of their lines, to the infinite variety of their profiles, are surprised, disappointed, at first sight, at the lack of grandeur and the uniform simplicity of the Greek temples.

"But the studious artist is not so quickly discouraged. Having scarcely taken in the whole at the first glance, he manifests a passionate fondness for details; he wanders in the midst of inverted columns, mutilated bas-reliefs; he is enraptured by these marble pictures, these metopes that have escaped the despoiling hand of Lord Elgin; he casts a curious eye over the whole edifice; he recomposes the destroyed parts; he searches for the jointing of the blocks of marble; he is astonished at their perfect bearing; he reflects. He often returns, never weary of contemplating these partial beauties, and, finally, one day, as he sits upon the base of a column dreaming of all these fallen grandeurs, at the moment when the sun sinks toward the summit of the mountains of Corinth, illuminating with a brilliant reflection this sea sown with isles, he casts a glance over the Parthenon, colored a roseate hue; wonderful! The monument has become animated and takes on new dimensions, the columns turn and seem to rise, the horses of the pan-Athenian procession start to move, life circulates everywhere, the temple appears to him grand and superb in all its divine beauty; he stands fascinated like Pygmalion when the statue of Galatea became animated before him; he is subjugated; he understands.

"It is no longer a plaything of art; it is a magnificent temple, splendid, immense; it is not a confused page, written in diverse styles, with obscure ideas; it is a work filled with clearness and logic; a work that is the expression, simple and complete, of the same idea; a masterpiece that bears in a supreme degree the three eternal characteristics of all architectural beauty: unity, solidity and proportional grandeur.

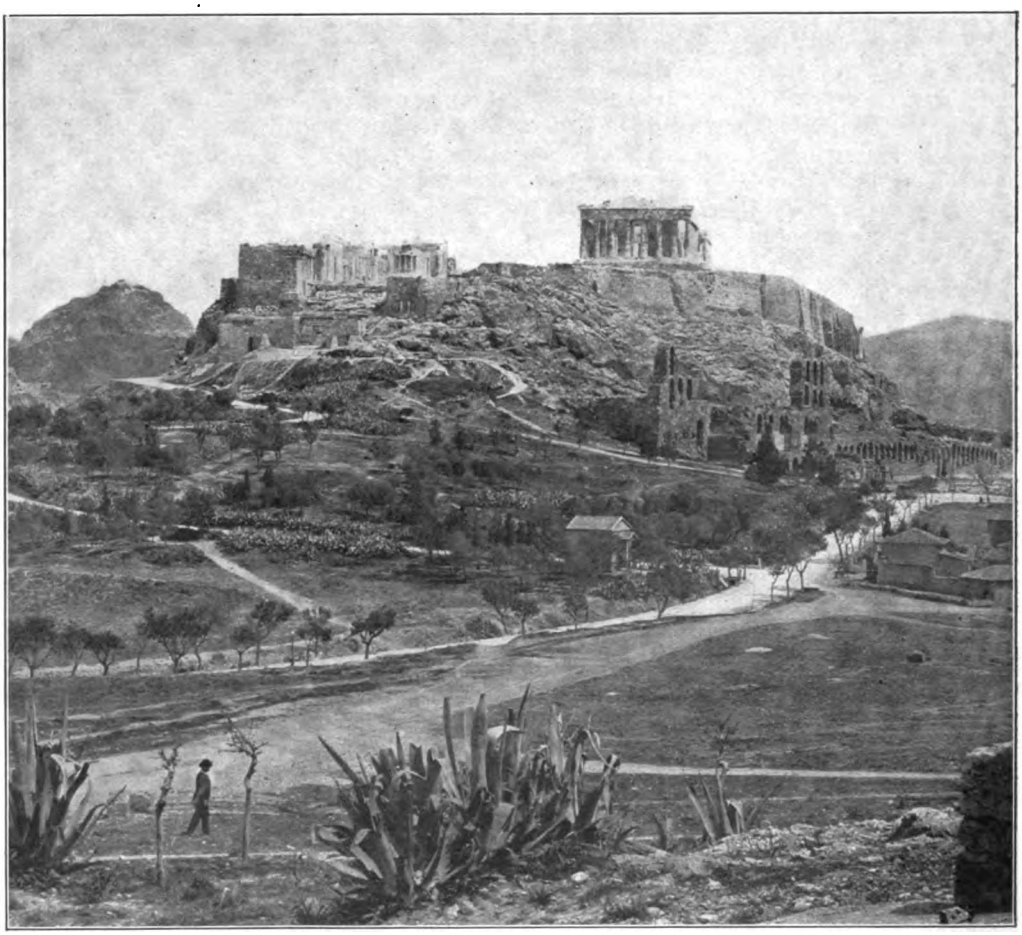
"No description can give a perfect idea of its beauty; it is necessary to see it; the splendor of the sky, the form of the mountains, the brilliancy of the illumination help greatly to a comprehension. Art is born of nature, and is in harmony with her; the one is the complement of the other. In the midst of this severe nature of Greece, at the center of these mountains, so well lighted that one sees the sky appear at a distance behind their crest, it was natural that the artists should confine themselves more to simple and straight lines than to fanciful curves. Haziness concedes the spirit dreams and fictions; clearness, which brings out forms, con-

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tours and colors, fixes ideas and imposes upon works that are the expression of them a character more simple and more fixed.

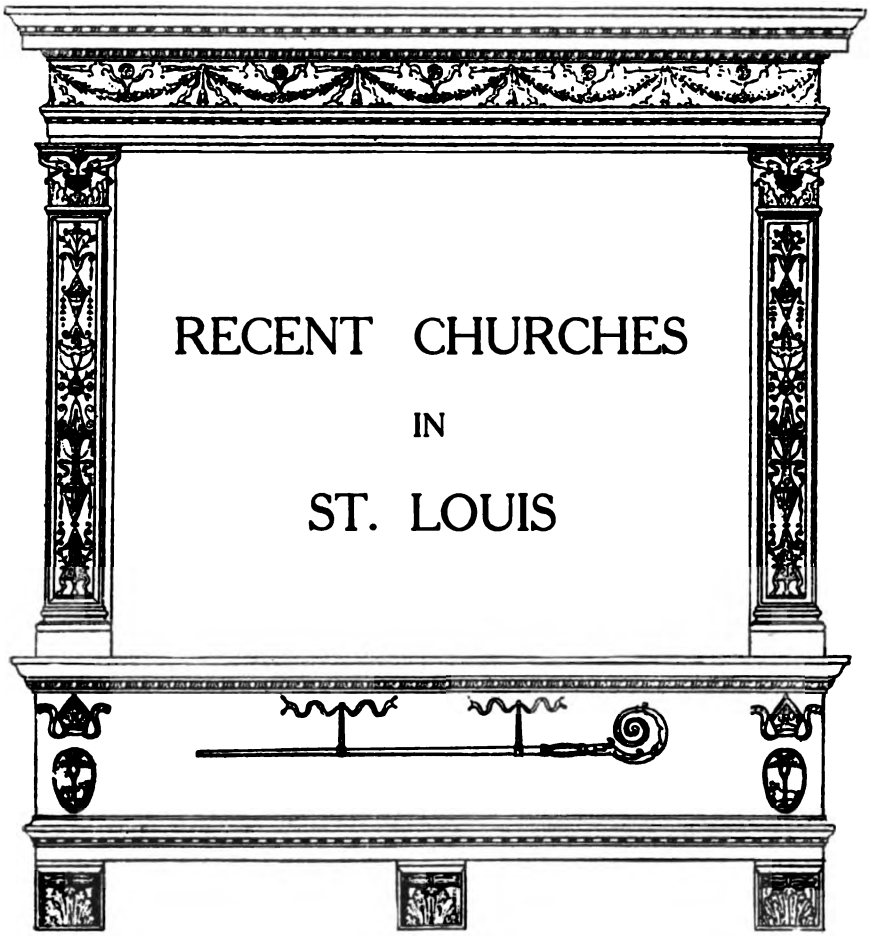
"The Greeks understood how to give an artistic setting to their monuments. Thus, elevated on a natural pedestal, in the midst of a plain to which the mountains give the form of an oval bowl, the Parthenon is doubly grand.

"I passed many hours sitting upon its steps, contemplating the magnificent spectacle of plain, sea and mountains, or, indeed, wandering about the sacred pavement of the temple of Minerva. In the midst of the cella, among the heaps of débris of columns and fragments of frieze, I remarked a bas-relief recently excavated which appeared to have been placed there as a symbolic figure. It represents three women bearing a funerary urn. It would be difficult to find anything more grave and devout than these three figures marching sadly one behind the other; desolation is imprinted on their faces and in their attitude. In this temple half thrown down, in the midst of these sad remains, they resemble three statues of Grief weeping over the ruins."

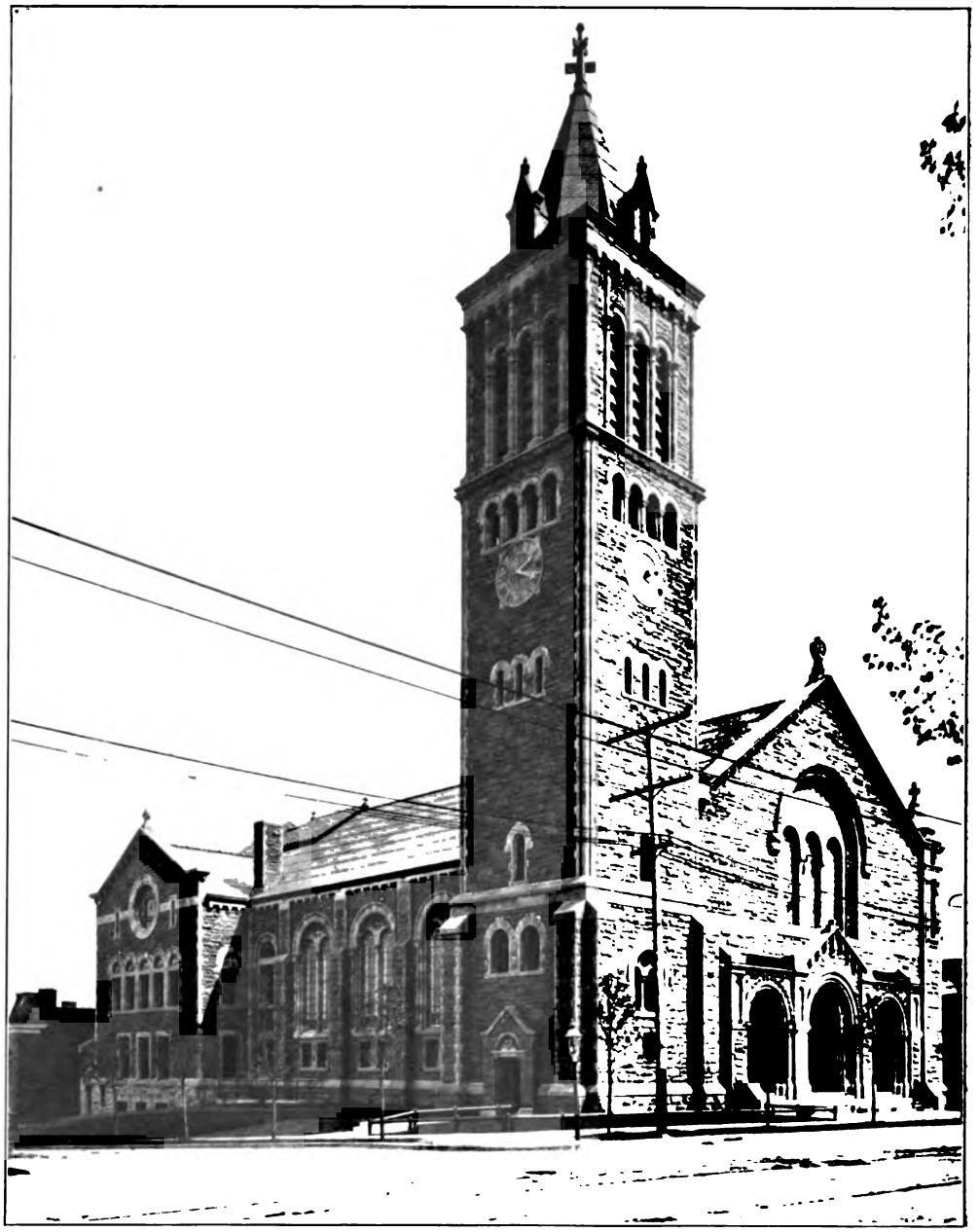


THE PARTHENON FROM THE NORTHWEST.

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PILGRIM CHURCH.

St. Louis, Mo. Mauran, Russell & Garden, Architects.

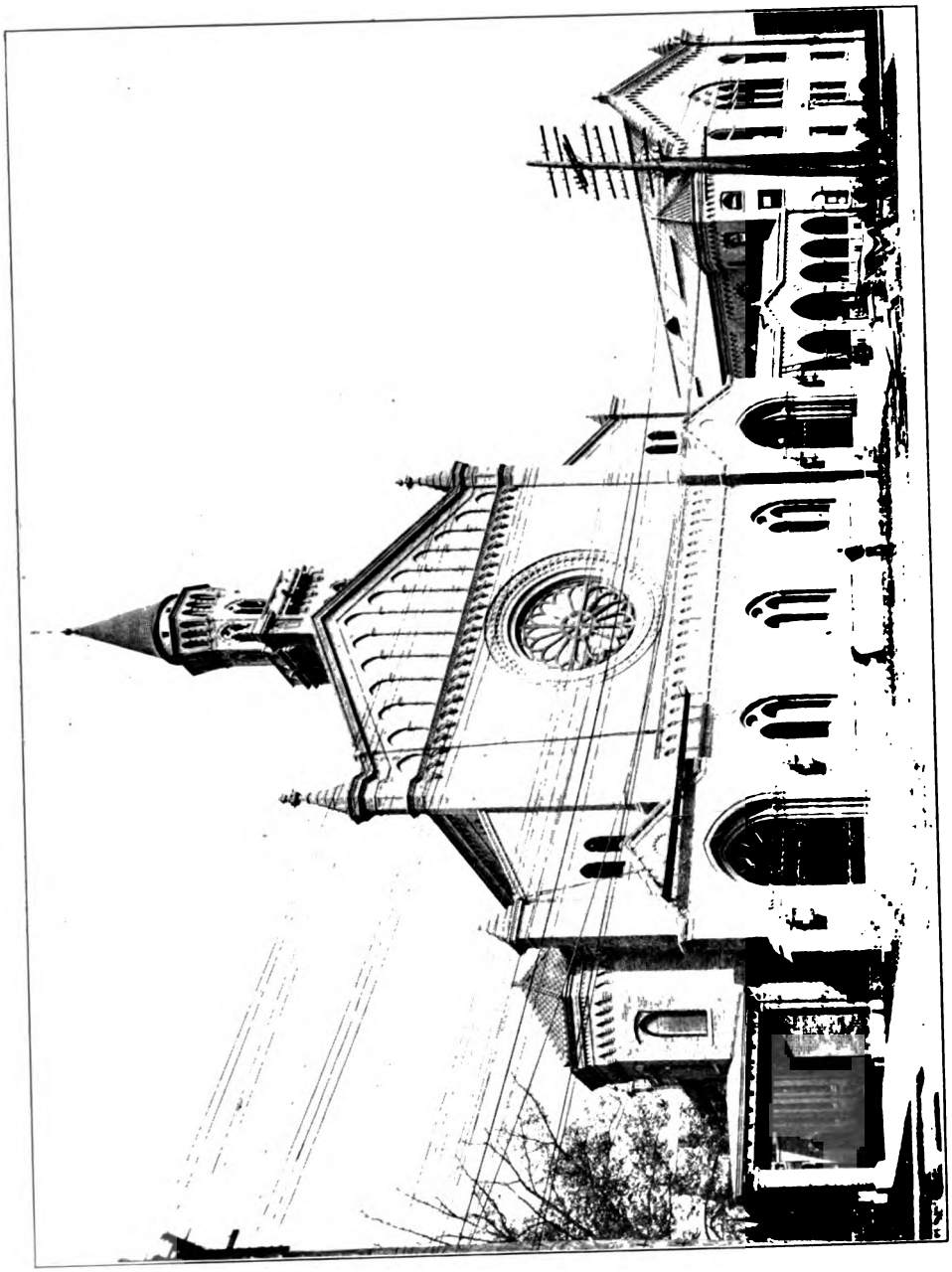
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UNION AVENUE CHRISTIAN CHURCH.

St. Louis Mo. Albert B. Grooves, Architect.

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SECOND BAPTIST CHURCH. Mauran, Russell & Garden, Architects.

St. Louis Mo.

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NOTES & COMMENTS

A NOVEL TYPE OF APARTMENT HOUSE

Most people who live in apartments do so chiefly for one of two reasons. Either they are compelled to this form of domicile by force of circumstances, or they prefer to live in such restricted surroundings to escape the cares and vexations of maintaining independent establishments. These are the extreme cases which have given rise to two distinct classes of large apartment houses, one of which affords the cheapest form of rentable abode, while the other furnishes the maximum of conveniences. The second class, as a rule, cannot offer cheapness in the way of rents as an inducement to the intending occupants. Perhaps such an inducement is unnecessary in this case, for the class of pepole who prefer this type of apartments do not, as a rule, need or expect to economize in their rent. They start out with the full expectation of purchasing convenience at no saving and generally at an advance over the rental for similar accommodations in an independent dwelling house. They are accordingly quite prepared to pay an annual rental of from three to six thousand dollars for the privilege of occupying an apartment of from six to eight rooms in a large and luxuriously appointed metropolitan apartment house in an exclusive section of the city.

There is, however, another type of multiple dwelling which has become prevalent in the outlying districts of large cities and along the business streets of the smaller cities and towns, the two and three family house. The kind of tenants who seek apartments in these houses, which are in the great majority of cases of the cheapest construction and of inferior equipment, do so from a combination of the motives which prompt those who inhabit the larger apartment houses in the large cities. Some of these tenants care enough for their surroundings to leave the confines of the city for the natural advantages of the suburbs or country, and cannot afford the expense of a whole house, while others desire to escape the trouble incidental to maintenance or the servant question, which still remains one of the greatest obstacles to a comfortable and enjoyable domestic life.

While these two and three family houses are generally of inferior quality, representing the smallest possible investment for the accommodations which they afford, the apartment house of Mr. Herman Hoelscher at 1932 Diversey Boulevard, Chicago, which we illustrate herewith, is an exception to the rule, providing in its sumptuous appointments all the comforts of the most modernly equipped American residence of the best class. Although there are but three floors above the basement the house is equipped with a passenger elevator. Each apartment covers perhaps more area and offers more than one of the highest-priced New York apartments before mentioned. The rooms, of which there are eight to each apartment, with three baths and two extra rooms for servants with independent baths, are unusually ample, as the frontage of the house is about forty-seven feet and its depth about eighty-three, exclusive of the bow-window extensions on front and rear. The location of the house on Diversey Boulevard, a select residential street in Chicago, would alone designate it as the abode of the well-to-do, and a closer inspection of the design, with its billiard rooms, conservatories, reception halls and lavish bath accommodations, only confirms this impression.

THE JOHN HAY MEMORIAL

Announcement has been made regarding the plans for the John Hay Memorial Library at Brown University. The architects are Shepley, Rutan & Coolidge, of Boston, who have made the plans for various other memorial libraries, and there is promised an English Renaissance structure in Indiana limestone, with basement, ground, first, mezzanine and second floors. It will be something over one hundred feet in length, will provide space, it is said, for two hundred readers, three hundred thousand volumes, and rooms for special libraries, besides the necessary offices. But perhaps the most significant thing about the building is

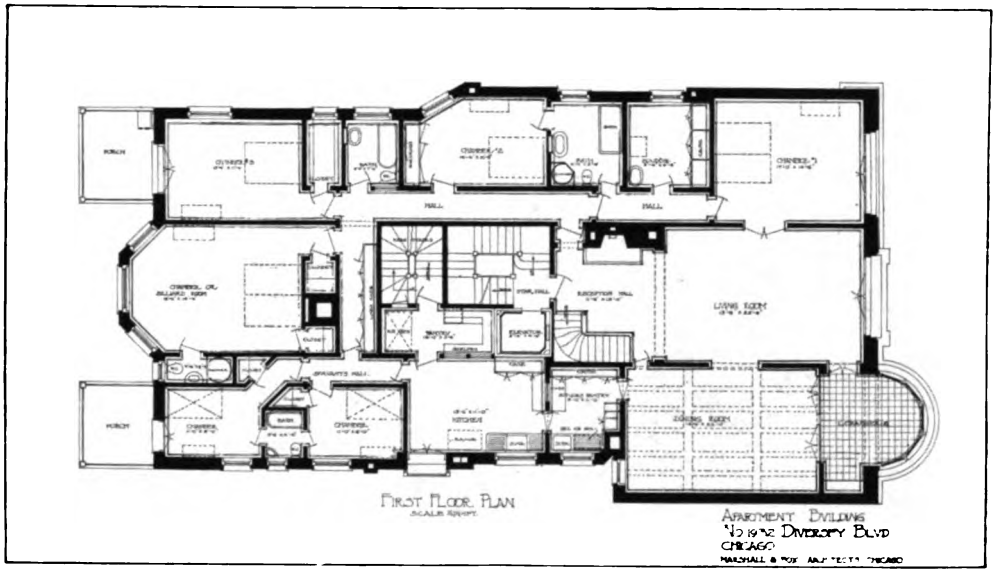
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the subscription of the money to pay for it. The structure is to be a memorial to an individual. The individual at the time of his death was Secretary of State, and very brilliantly successful in the high office. Yet the memorial takes the form of a library building because the man of letters—the author of "Little Breeches" and other verse and prose—was regarded more highly even than the statesman; and it is to stand, not in the capital of the nation, but on the campus of his alma mater, as to him the dearer place; and it is paid for, not by the contributions of a people, nor even of his party; but by ten friends. And yet the sum subscribed by these ten friends reaches the prodigious sum of a quarter of a million dollars! Surely there is much to think of in this collection of facts, and not a little that must have been inspiring to the architects.

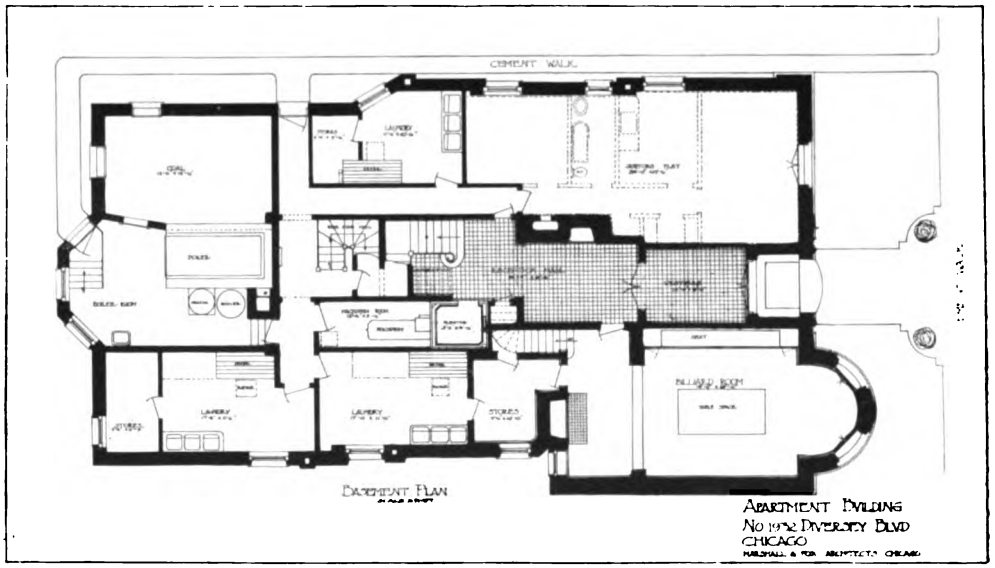


APARTMENT HOUSE OF MR. HERMAN HOELSCHER.
1932 Diversey Boulevard, Chicago. Marshall & Fox, Architects.

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FIRST FLOOR PLAN.

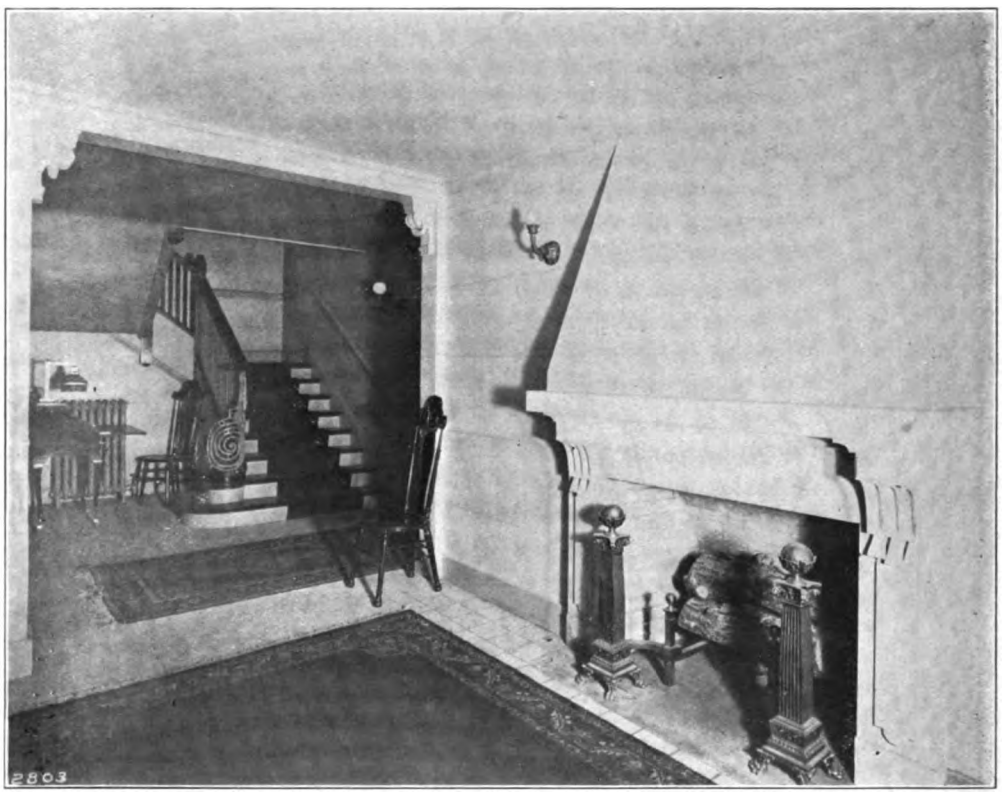


BASEMENT PLAN—APARTMENT HOUSE OF MR. HERMAN HOELSCHER.
1932 Diversey Boulevard, Chicago. Marshall & Fox, Architects.

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THE ALDRICH MEMORIAL

As a structural memorial to a literary man, that which was dedicated in July, at Portsmouth, N. H., to the memory of Thomas Bailey Aldrich, presents an interesting contrast to the new library that is to rise at Providence in memory of John Hay. For the Aldrich memorial is the so-called Nutter House, which belonged to Mr. Aldrich's grandfather, and which is delightfully described in "The Story of a Bad Boy." The house has been so "restored" that it is said exactly to duplicate to-day its appearance at the time when Mr. Aldrich was a boy. This is equally true of interior and exterior. The wall-papers have been restored, the old furniture has been collected, the kitchen reproduces the kitchen of one hundred years ago. The old books have been collected or replaced, and the smallest articles of furnishing, even of clothing, have been brought back to the old home. In the attic are to be found the spinning-wheels, old-fashioned lanterns, foot-stoves, odds and ends which made the old garret so delectable. The reading-lamps, china, silver, great four-poster beds, old prints on the walls, music on the racks, old-fashioned stools of haircloth decorated with handwork, great clock in the hall, all things have been so completely collected by Mrs. Aldrich's tireless efforts, or so perfectly reproduced, that the house is not only a memorial of Mr. Aldrich's childhood, but is said to be one of the most interesting examples in the country of pre-revolutionary domestic environment. Dr. Van Dyke's sonnet for the occasion began with these words, expressive of the purpose:



RECEPTION HALL AND PUBLIC STAIRCASE IN BASEMENT—APARTMENT HOUSE OF MR. HERMAN HOELSCHER.

1932 Diversey Boulevard, Chicago. Marshall & Fox, Architects.

This is the house where Aldrich read
The early pages of Life's wonderbook
With boy's delight. Beside this ingle-nook
He saw the driftwood fire of fancy shed
Weird colors on the pictures blue and red.

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The result is an instructive and interesting product—more so, perhaps, to the average architect than to the general reader of Aldrich. And there is ground for criticism that the memorial is rather to the boy than to the man—a fact, however, that may be fairly excused by the subject of the book that made him famous.

DECLINED OPPORTUNITIES

Since the Baltimore fire, when that city, in a bold widening and replanning of streets, so nearly grasped the opportunity to recast the burned portion in accordance with modern municipal art as well as science, there has doubtless been among enthusiasts a subconscious yearning that the chance might come again—to some community other, of course, than their own. But it has come and gone with results less good than Baltimore's. San Francisco declined it; and Chelsea, Mass., seems to have let it slip, as far as any adequate measures are concerned—though it lies in a very hotbed of landscape architects. The lesson of these disappointments seems to be that more important than opportunity is the education of the public, so that there may be a will to seize opportunity when it comes—or even to create one. As is not very generally known, a tentative plan was in readiness for the recasting of Chelsea on lines of modern civic beauty within a few days after the fire. Inside of a week indeed, there was published in the Boston "Post" a preliminary plan prepared at its request by Pray, Hubbard & White, of Boston. To the statement they make in transmitting the report: "Unless the new city is also planned for beauty, we believe it will certainly fail to attain to its greatest financial prosperity. The more attractive it is made to live in, the more permanent the type of dwellings that will be built," there will now be pretty general agreement. And the fact that the architects did not find it necessary "to depart very radically from the main lines of the old plan, which have become established through serving definite needs of transportation," only makes the popular disregard of the plans the more discouraging. The city beautiful idea and city replanning have made marvelous strides in the United States in the last few years; but such setbacks as the Chelsea show that the battle has not been all won yet—even in the shadow of the dome of the Bulfinch State house.

ARCHITECTURE AND A PAGEANT

There can be little question that the artistically designed historical pageant, so successful in England, is going to be equally popular with spectacle-loving Americans. Already it has had very extensive and brilliant test in the tercentenary at Quebec. If it does become so, the "pageant of education" which was the feature of the Dedication Festival for the splendid buildings of the Normal school in Boston will have a peculiar interest as perhaps the first of a long and important series. But very interesting it was in itself. There is no space or need here to describe it, but there may properly be direction of attention to the prominent part which was had in this pageant by architecture and its kindred arts. In the first place, the occasion was the dedication of an architectural product. The scene's setting was the building's beautiful courtyard. The entrance procession was led by the Handmaids of Alma Mater, and these were adapted from the panels of Daniel C. French in the Boston Public Library: Knowledge in purple raiment, Poetry in violet, Romance in rose, Truth in blue, Music in white, and Inspiration in the Sir Galahad red of the Abbey frescoes. Alma mater herself, clad in gold and white, holding a scepter and a book, faithfully represented the well-known figure by French at Columbia University. It has been happily pointed out, indeed, that the whole keynote of the pageant was found in the words chiseled above the portal of the school, "Education for Service"—the great thought that organized education no longer means isolation, nor scholarship self-development only. In the modern conception, social service is the obligation of both. Architecture's expression of this was sufficiently direct to be utilized in the pageant, and so far as architecture did express it, the spirit of the age was in it.

A CIVIC REVIVAL

The movement which has been in progress for at least a year for the comprehensive improvement of Grand Rapids, Mich., would be misnamed if styled "a campaign," for that would suggest that there had been positive opposition to overcome. As a matter of fact, there very seldom is real opposition to such a movement. The thing to be over-

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come is the inertia resultant from ignorance. But the energetic fashion in which this was accomplished at Grand Rapids, gives a peculiar fitness to the term "civic revival" which has been applied to it. Indeed, it is said that a clergyman, who made that his catchword in suggesting an aggressive crusade for the city's improvement, is largely responsible. His suggestion was made to the Municipal Affairs committee of the strong Board of Trade. Through its interest, the mayor appointed a special committee of nine exceedingly prominent and respected citizens to decide what should be done, and where and how. The committee engaged a secretary, who at once got into correspondence with other municipalities and the leading civic authorities of the country. In the meantime, by way of rousing the public interest, so as to have popular backing for the plans to be proposed, Professor Zueblin was engaged to give a series of civic lectures. Thirty-nine societies of one sort and another accepted the invitation of the Board of Trade, which alone has a thousand members —and the population of Grand Rapids is only about one hundred thousand—to cooperate in making the lectures a success. Professor Zueblin writes: "I gave them fourteen sessions in seven days, and we had out about 12,000 people. Then the committee's demand for $1,750 from the City Council, for the engagement of experts to lay out a comprehensive plan, glided through the council without opposition." At this writing there has been no public announcement as to the choice of the experts—in fact, the sum available for them is pretty small. But no doubt they will be good men. The revival was not confined to the wholesale conversions effected by Professor Zueblin. On Arbor Day forty addresses were delivered in as many public schools, and ten thousand elms were given to the children to plant in various parts of the city. The President of the Board of Trade has said: "I have never known Grand Rapids to be so thoroughly and generally aroused on any subject. The interest in the Civic Revival has seized all classes of citizens, and created a sense of fellowship which is remarkable." It is instructive to learn that in addition to the steps already described for arousing such interest, High School pupils were given credits for reports of the Zueblin lectures, and there were used lantern slides, prepared by the local Camera Club, to show the disfigurement of the streets by telegraph poles and billboards; the mean approaches to public buildings, and neglected vacant lots. It was all very systematic and energetic; and the citizens are ready now to insist that whatever in reason the experts may recommend, shall be carried out.

CITY PLANNING IDEAS

Somewhat delayed, reports have come to this country of an address delivered by Paul Waterhouse, before the Architectural Association in London. He took as his theme the imaginary task of planning a new metropolis of the size of London—an opportunity which would be, he said, "not an artistic blessing, but an artistic calamity." This he explains with these words, "A city so built would be full of convenience, but also full of a well ordered prim propriety, which every true lover of cities would regret. To take the most obvious aspect of my meaning, there is the question of straightness. No one but an old-fashioned landscape gardener (*sic*) has the moral courage to be deliberately crooked; a new city would involve on many grounds the duty of straightness, and we should do our best to evolve from it the beauty of straightness—we should glory in length, in vistas longer than the longest sight, in roads of arrow-like purpose that speed unswerving from spot to spot, but we should lose that happy obliquity which is justified only by the cause (generally the slow buffetings of history or geography) which bend the highways of our older cities." Most planners of cities will dissent from his statement as to the opportunity, and, feeling sure that they at least would break up their vistas with accents at appropriate points, will say that he spoke for himself rather than for others. But the criticism remains interesting and suggestive. It emphasizes the fact that in the replanning of cities there is great need of reverence for the past. A city's individuality, in fact, largely expressed by irregularities, is the most precious thing it has. An American who has had a hand in a good deal of the re-planning in this country has recently said, in writing on the subject: "The first thing which is looked for by him who adequately approaches the problem of city-planning is that intangible something which the city says, which is the secret of its own peculiar charm among cities. And when he has found this, it tempers his whole re-casting of the city; subtly, unconsciously, it affects his every scheme. A man might be wondrously learned in engineering, in landscape designing and in architecture; but un-

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less he was so sympathetic to the spirit of cities that he could catch the individual expression of each, he must fail in the making of city plans." But to go back to the address, another interesting idea which was brought out was concerning a convergence of traffic at centers. This is a result which is exaggerated in most new city plans by means of "circusses," *rond points*, etc. The speaker's advice was, "Don't!" "Where two diagonal roads cross one another, and are also met by an east and west road," it should be contrived, he thought, "that the meeting miss fire," so that "the point of conflict" should be spread. A final thought was that city designing is an art—"One art," he said—"that deals with practical things and practical issues, an art which will lose its dignity if it ever forgets that these things and issues are practical." This is well put, though perhaps it did not need the saying.

A STUDY OF LEGISLATION

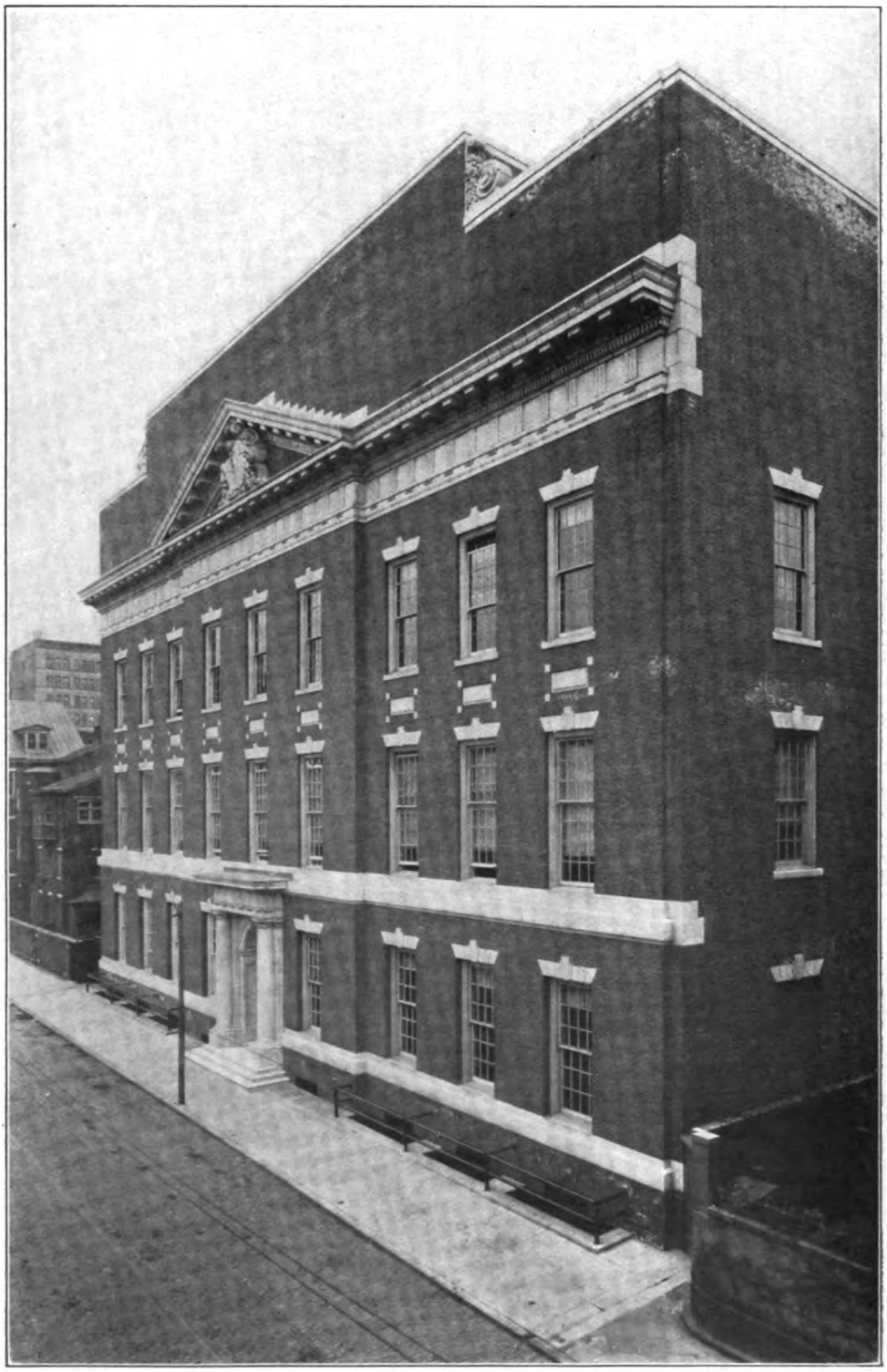
T. C. Horsfall, of Manchester, England, a leader of the English movement for housing reform, has prepared a compilation of the legislative enactments of Germany to improve "the dwellings and surroundings of the people," and the Manchester University Press has published it in a paper bound book of some two hundred large pages, fully indexed, illustrated, and of the greatest interest and value. It is not as easy reading as a romance, nor could one possibly give the gist of its contents in any review appreciably shorter than the book itself. For it makes available for English speaking readers the essential features of the great mass of legislation, not only by the empire but by the cities and towns of Germany, that relates to building and town-planning.

That Germany has gone much further than other countries in such legislation, everybody knows. But the need was much more urgent. Tables are given showing the number of inhabitants and the number of families per dwelling in 1881 and in 1891 in the cities and towns of Germany, and of England. In the latter, including London, the average number of inhabitants to a dwelling in 1881 was 6.3, in 1891, 6.1; and of families in 1891, 1.31. Excluding London, the number was appreciably smaller. In Berlin, the number of inhabitants per dwelling in 1880 was 44.9; and in 1890, 52.6. In Breslau, 33.2 and 35.4, respectively; in Dresden, 32.6 and 27.4, respectively; in Leipzig, 38.6 in 1880. The number of households to a dwelling in 1890 ranged from 5.1 in Munich to 12.3 in Berlin—omitting Bremen, where the number was only twice as many as in Eng'and, London included. Of every thousand persons, it is found that in the cities there were living in one, or at most two, rooms, often with no fireplace, 760 in Koeningsberg, 742 in Breslau, 738 in Berlin, 688 in Dresden, 679 in Hanover, etc. It is no wonder that Germany has become the experimental ground for advanced housing legislation.

To combat such evils there is legislation permitting the cities and towns, themselves or by contract, to erect, when necessary, small dwellings for the use of the town's own workmen and officials who have low salaries; to encourage building societies that limit their dividends to not more than four per cent., by remitting assessments and taxes, by loaning money, or credit, or selling town land to them at low cost, and on easy terms. Some of this assistance can be given even to individuals. It further combats the evil by facilitating the provision of transportation, and finally by elaborate town-planning schemes. The details of this legislation are as suggestive and interesting as is its general character.

The General Building Law of Saxony (1900) "individualizes." This is on the principle enunciated by Herr Stuebben, the eminent architect: "He who builds a house for himself can safely have almost complete freedom granted to him. Care for himself will, as a rule, have more effect than all the care that the police can give. . . . The application of the whole army of regulations, which are needed in the case of a vast barrack-dwelling house, to the small dwelling that will be occupied by one family, is aimless and unjustifiable." Under this law, again, "Buildings which would form a public disfigurement of the place can be prohibited. By a by-law higher architectural demands can be made for certain streets, or parts of streets." Thus, with all the regulation and restriction, the effort of the Saxon law is "to give as much freedom in building as is campatible with the rights which need protection, and with well-founded interests." It is this aim which gives to the general and special building laws of Germany much more than merely academic interest to English and American readers.

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THE RACQUET CLUB'S NEW QUARTERS.

Philadelphia. Horace Trumbauer, Architect.

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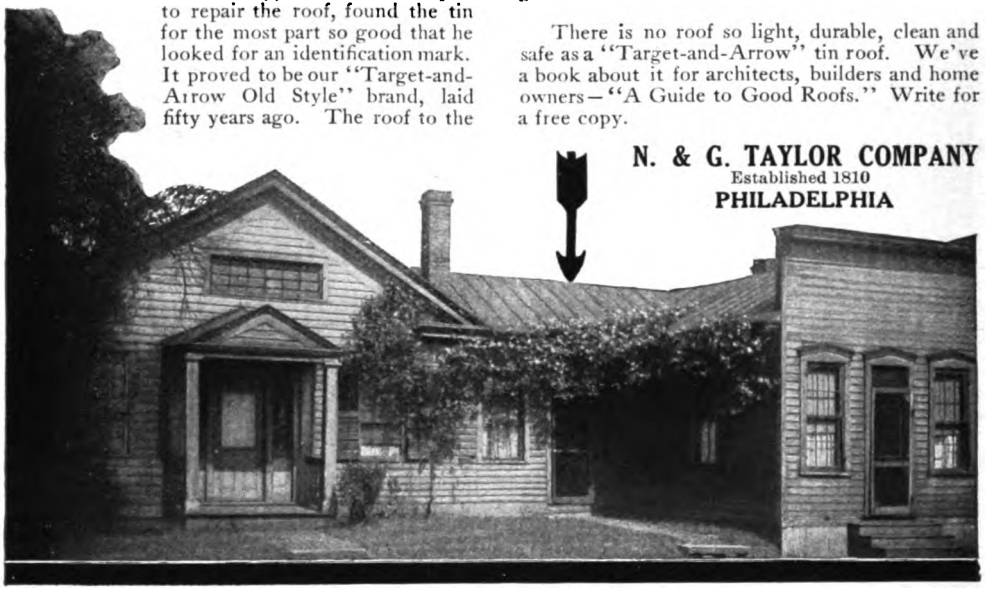
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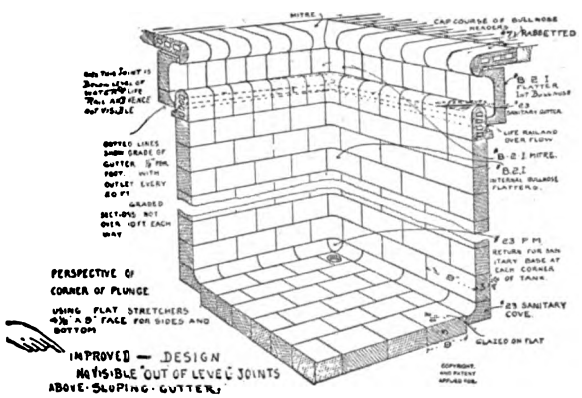
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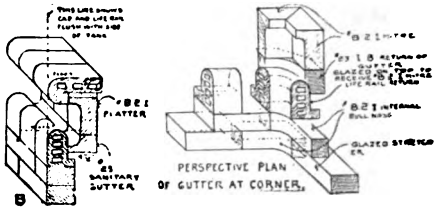
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THIRD: Affords **a Life Rail at Water's Edge** within easy reach of swimmer. Much more convenient and practical than festooned life ropes or rigid bronze railings far above water surface. This avoids the necessity for nervous or rattled swimmer to reach high out of water (thus helping to force his body under water) to get Life Rail.

FOURTH: The Life Rail is not an interference to diver, as is an extending metal Life Rail. Cap course can be made flush with Life Rail, if desired, by use of the inverted gutter, B-2-1 Flatter, as shown in section "B," and also on the general drawing. Life Rail and Cap Course can be tied firmly together by insertion of the tie rods into the hollow form of Cap and Life Rail unit.

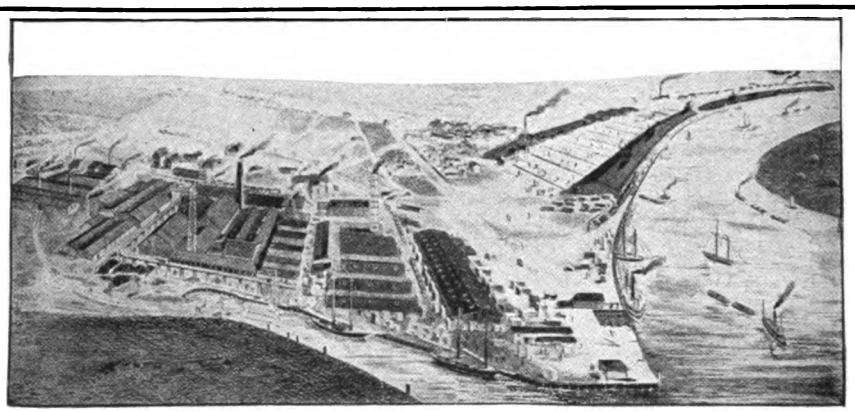
FIFTH: Our Life Rail is a help to swimmer in getting out of tank, not a hindrance, and gutter affords a convenient place for swimmer to expectorate.

SIXTH: Our Porcelain finish is impervious to acids (contained in the water), and is far superior to marble in this respect. We do **not** use soft lead glazes ; but on the contrary, a hard, pure enamel, on a fire clay body, standing the heat, cold and natural changes easily.

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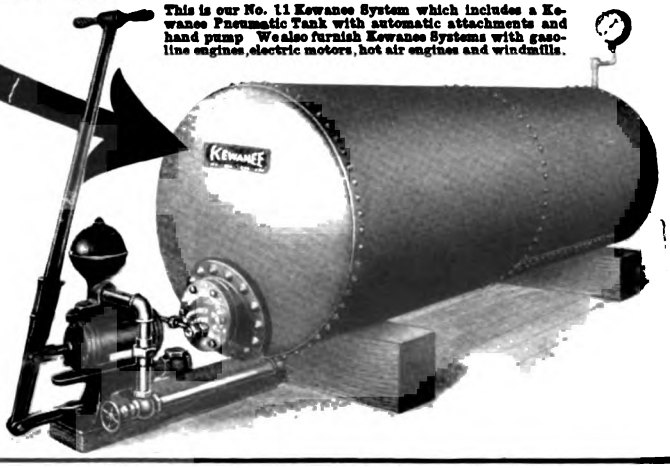
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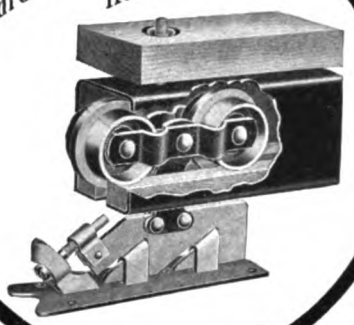
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Consult Sweet's Index, Pages 1378 and 1379.

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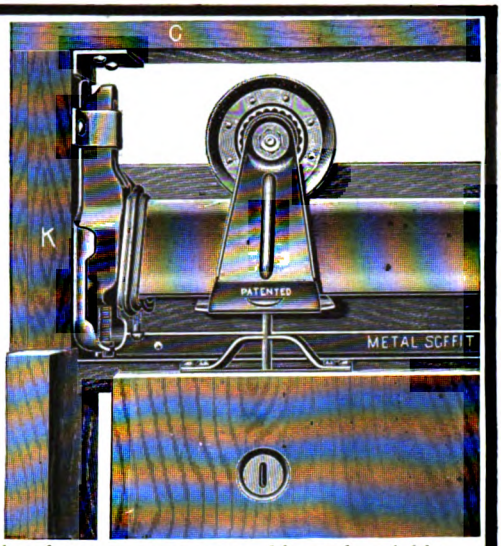
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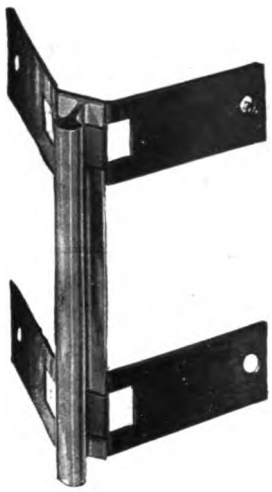
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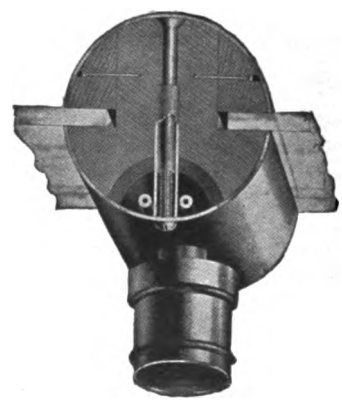
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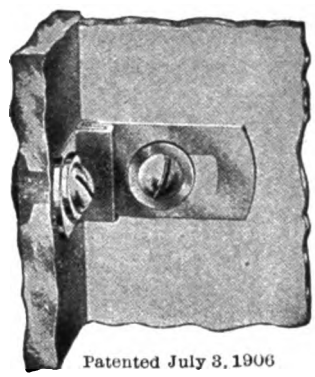
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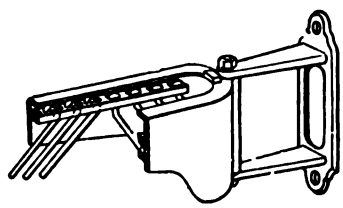
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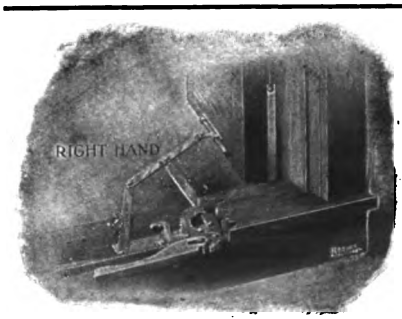
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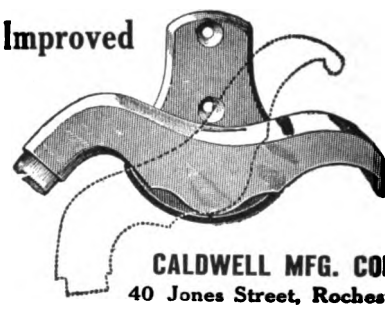
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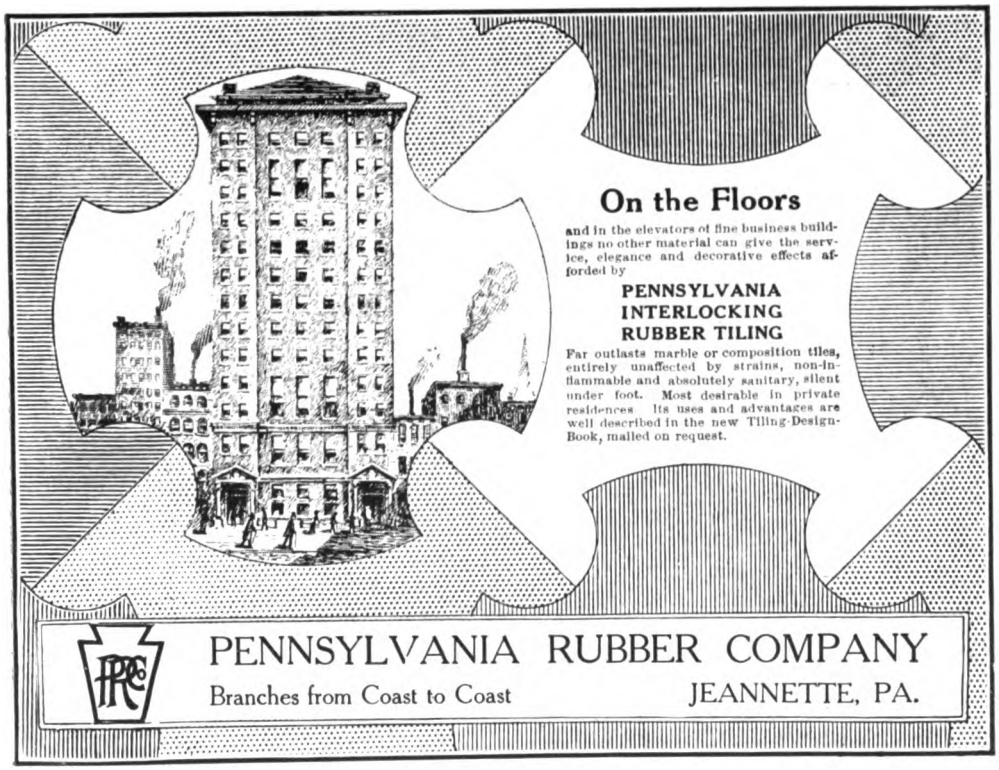
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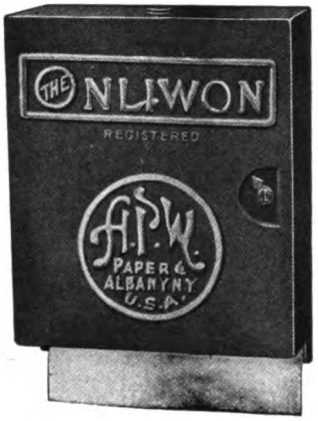
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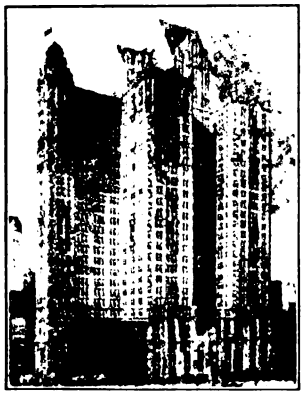
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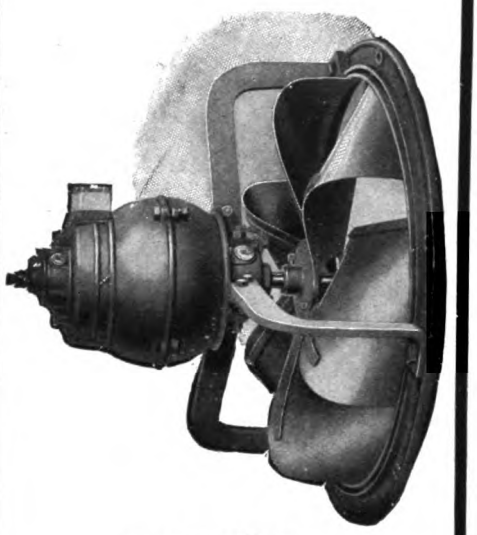
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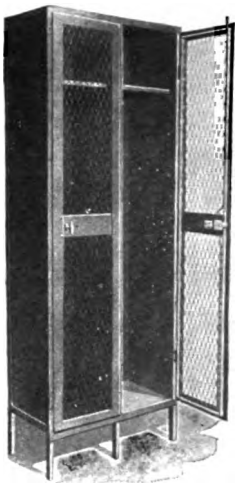
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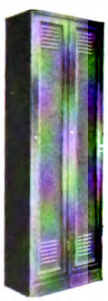
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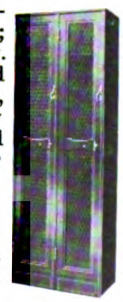
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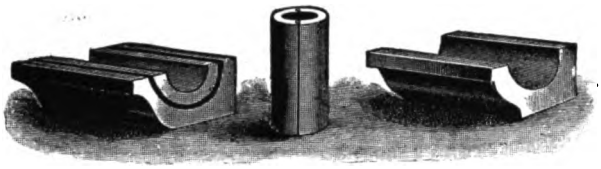
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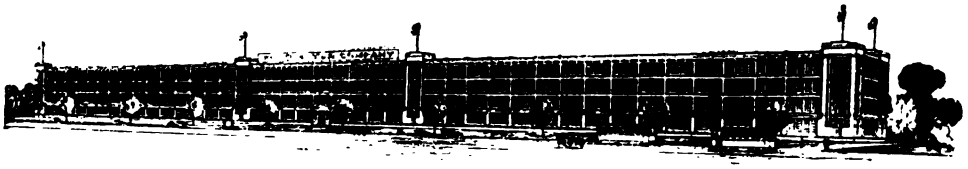
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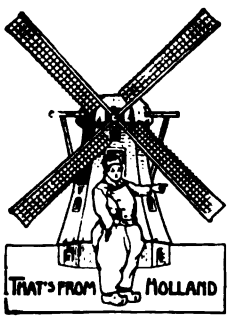
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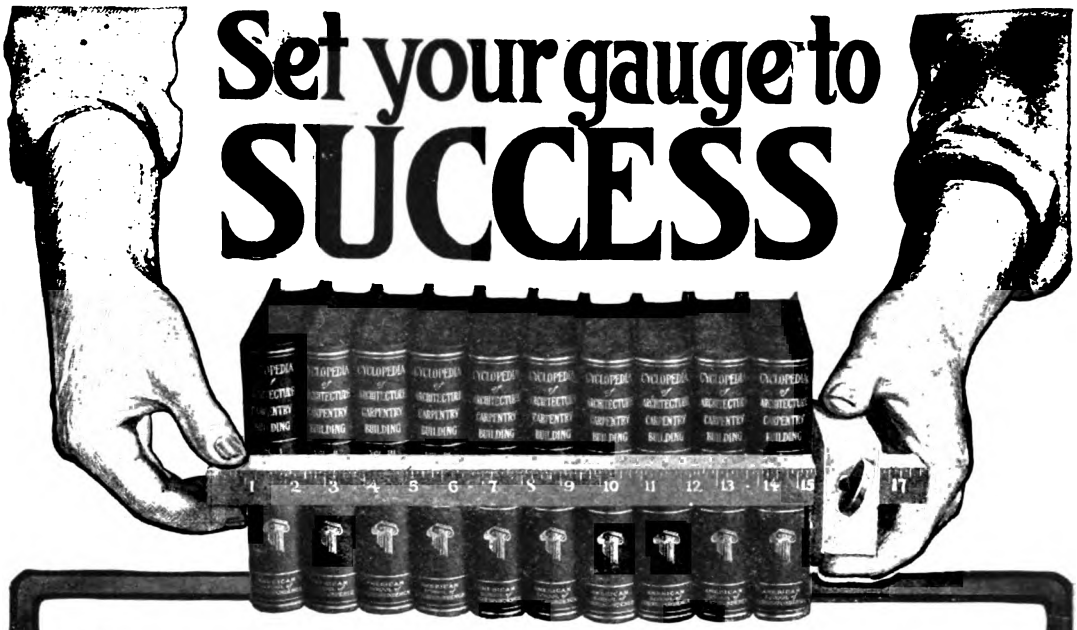
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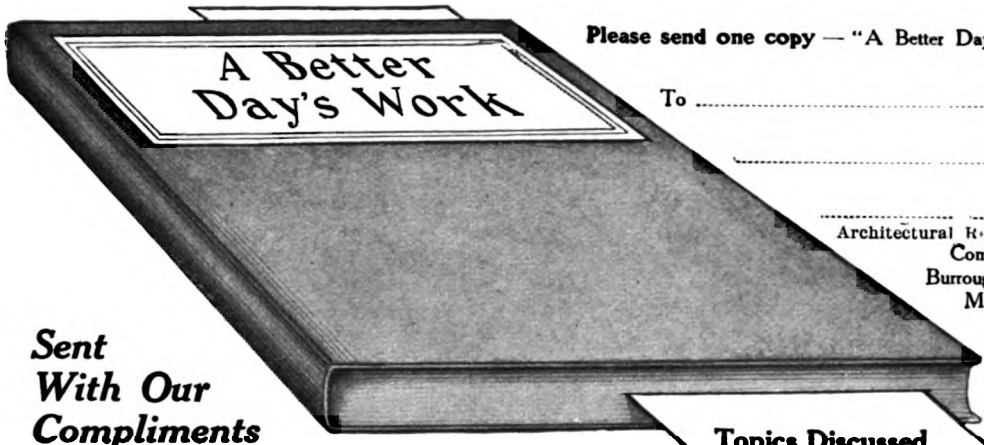
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Comparative Statements of Operating Expenses
Methods of Analyzing Outstanding Accounts
How a Trial Balance Can be Handled with Accuracy and Quickness
Recapitulation of Sales in a Retail and Wholesale Store
How to Handle Monthly Statements
Proving Your Daily Postings—A Prevention of Trial Balance Troubles
A Shorter and Better Way to Handle Cash Received
Checking Invoices by Machinery
Handling a Pay Roll With Quick Accuracy
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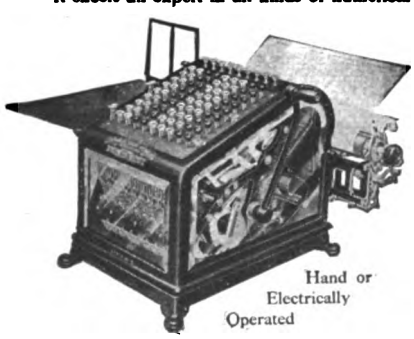
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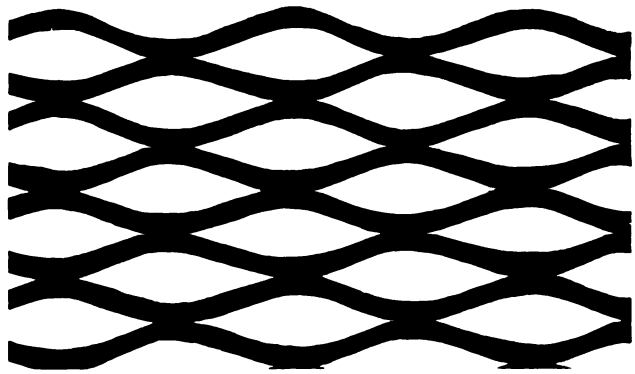
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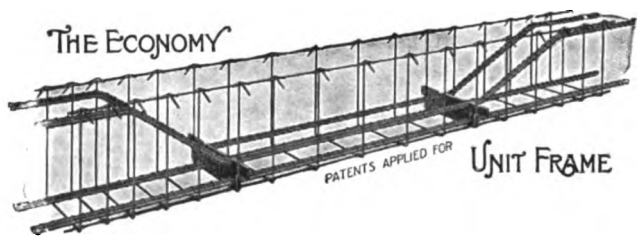
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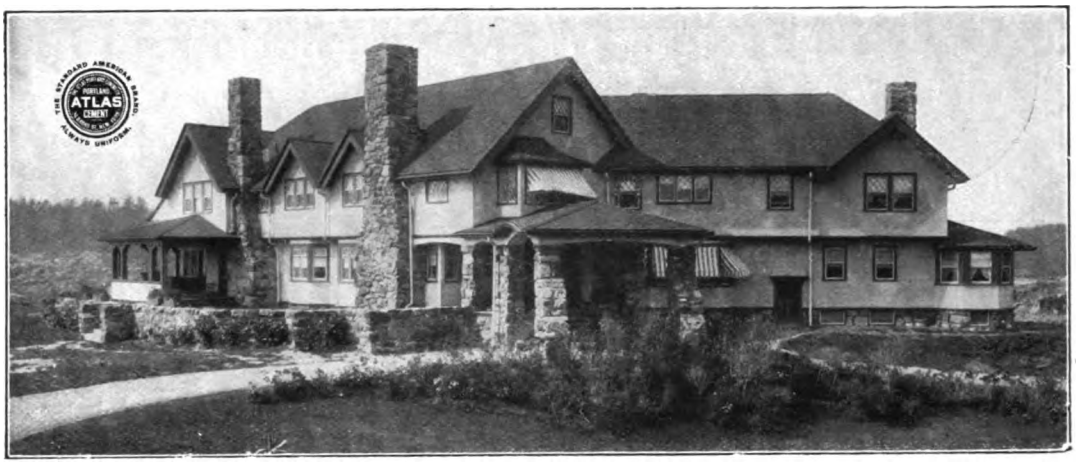
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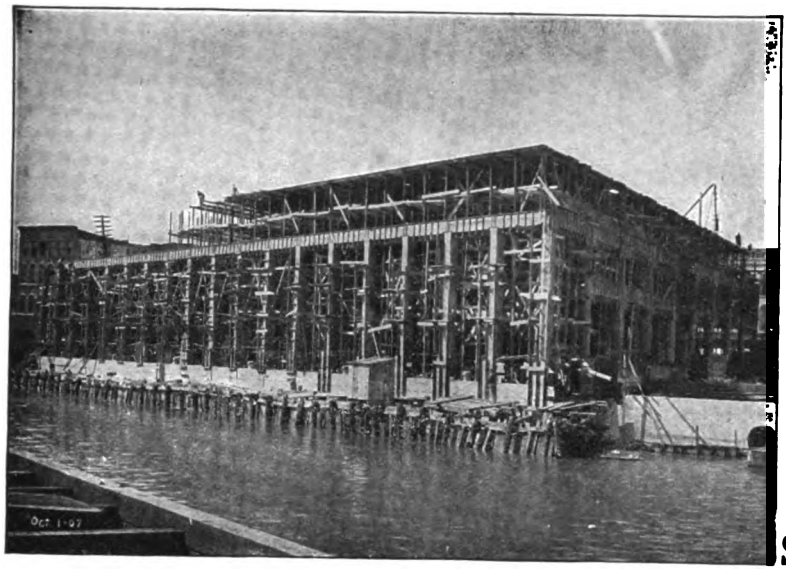
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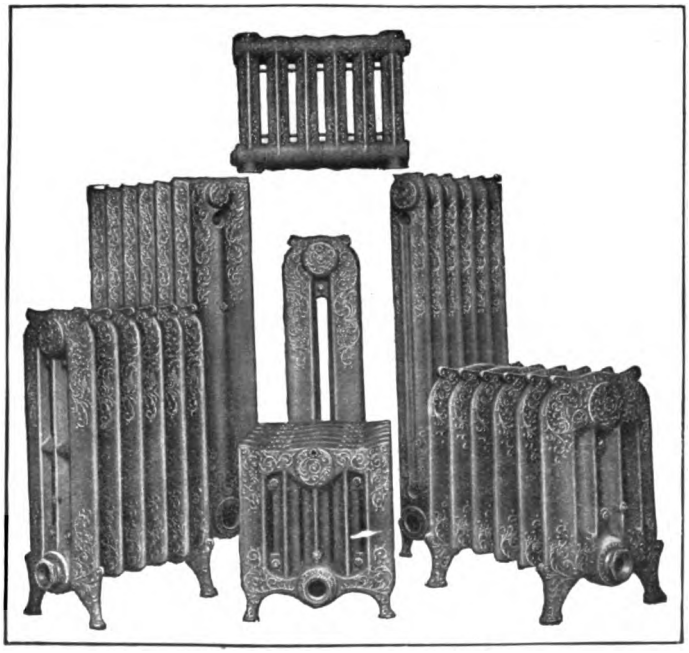
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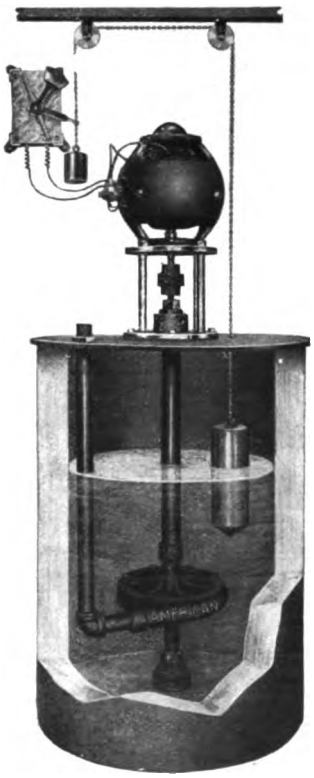
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Regulates the fire automatically from the temperature of the living rooms. Saves 20% of the fuel and 50% of the work of running a heater.

We manufacture a large number of temperature regulating systems for different purposes. They are all described on pages 706-709, 1907-8, Sweet's Index, in any architect's office.

The Powers Regulator Company

40 Dearborn Street
Chicago

115 Fifth Avenue
New York

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JENKINS BROS. RADIATOR VALVES

FOR USE ON STEAM HEATING PLANTS

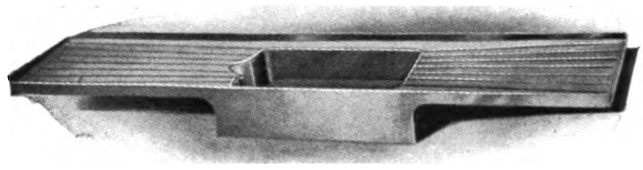
are the easiest to keep tight. The metal and workmanship are of superior grade. They are furnished in many different styles,—plain, finished and polished, or nickel-plated. Every genuine valve is stamped with Trade Mark, as shown in the cut, and guaranteed. Copy of new illustrated catalogue mailed free on request

JENKINS BROS., NEW YORK, BOSTON, PHILADELPHIA, CHICAGO, LONDON

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The ONLY BRASS GOODS GUARANTEED 5 YEARS

GLAUBER BRASS MANUFACTURING CO., CLEVELAND, OHIO



Pantry Sink, with Double Drainboard Combined, Covered with Copper or German Silver or Nickeline.

Established 1850

JOHN TRAGESER STEAM COPPER WORKS

447 to 457 West 26th St.
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DRAINBOARDS & PANTRY SINKS

Covered with German Silver



BOSTON COPPER RANGE BOILERS

are the BEST made
and are all GUARANTEED



We make four grades, to meet every demand of QUALITY and PRICE. We make Pressure Boilers to stand any required pressure up to four hundred pounds.

Designed in every detail to give long and reliable service. Embodying only highest grade materials and skilled workmanship in their construction. Special sizes to order.

DAHLQUIST MANUFACTURING COMPANY

Largest Manufacturers of Copper Boilers in New England

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The Spencer Turbine Cleaner Company

MANUFACTURERS OF

Vacuum Cleaning Apparatus for all purposes

Principal Office and Factory **Hartford, Conn.** **Agencies in all large cities**



THE GORTON QUICK OPENING RADIATOR VALVE

One third of a turn of the lever handle will open or close the valve

SEND FOR PRICES

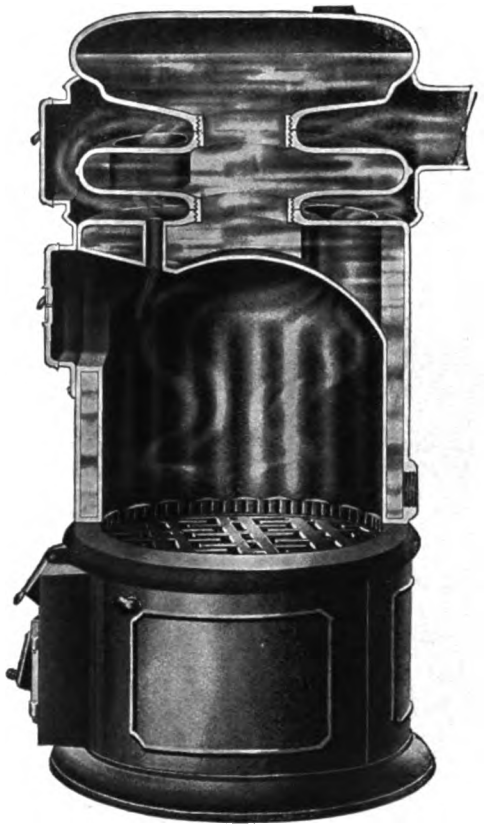
GORTON & LIDGERWOOD CO., 96 Liberty St., New York

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The "Modern" Boiler

IMPROVED

For Steam or Hot Water



The "Modern" is an improved boiler added to the "Pierce" line.

The improved rounded firepot, completely covering the fire chamber, the economical fire travel, the improved water section, the large waterways, the simplicity of construction, the large, roomy base with rocking and dumping grate, make the "Modern" the most desirable boiler for residence heating.

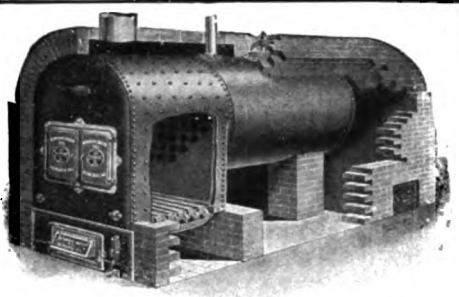
Blue Book describing this new boiler will be sent on request.

Pierce, Butler & Pierce Mfg. Co.

Dept. U

Syracuse, N. Y.

When a Man gets the best of a Bargain, the World laughs with him, but when the Bargain gets the best of it, the World laughs at him.



Here is the Point

When your client is pleased with his outfit, he has the best of the bargain, and he has the laugh on the other fellow.

Pleased? He wouldn't know he had a boiler in the house if it wasn't so comfortable. It works so easily, needs so little care, and fills the house with such a pleasant summer heat, and yet with so little trouble.

Remember

Thirty-five years of rich experience has made the KEWANEE and HAXTUN Boilers the best that money can buy.

The KEWANEE Firebox for the larger and the HAXTUN for smaller installations.

Remember, too

The KEWANEE Line is the largest and most complete line of steel and wrought iron heating boilers made. Specify them!

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KEWANEE BOILER COMPANY

KEWANEE, ILLINOIS

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SILVER LAKE A

Our name is stamped on every foot

We guarantee

SILVER LAKE SASH CORD

because we know that it is made by skilled labor, on the best braiding machines and from the best stock obtainable.

Specify SILVER LAKE A

EDWARD : H : ASCHERMAN
SAMUEL : J : MACMAHAN
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Harmony in design and color should be carefully studied where the interior of the home is concerned. We execute decorations and furnishings from our own original designs which give that individuality so essential in the modern home. :: :: :: ::

CHEAPEST Way on Earth to Heat Water

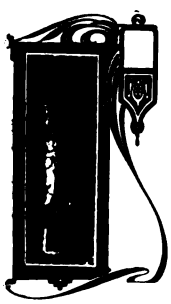
GARBAGE STODDARD BURNERS



The Only Right Way to dispose of Perishable Refuse. See "Sweet's," Vol. 2

Stoddard Garbage Burner Company

52 DEARBORN ST., CHICAGO



Poorly Heated Homes

Any home that is not comfortable during extremely cold weather can be fixed right by the application of a Honeywell Heat Generator below the expansion tank.

Your fitter will apply the Generator in an hour and will remove it at our expense if it fails to remedy the trouble. If you wish this proposition in writing, we will send the guarantee on receipt of the statement of your trouble. Talk this over with your fitter, for most fitters know

THE HONEYWELL HEAT GENERATOR

and know that it is working a revolution in hot water heating plans and figuring

6,000 Honeywell Heat Generators have been installed.
"Must Be Something In It"

Honeywell Heating Specialty Co., Wabash, Ind.

LUFKIN MEASURING TAPES and RULES

Are Indispensable for Accurate Work

For Sale Everywhere. Send for Catalog No. 20.

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The Barrett Specification

for roofs of coal, tar pitch, tarred felt and slag, gravel or tile, has been adopted by architects and engineers everywhere. Send for Barrett Handbook.

BARRETT MFG. CO. New York Chicago

The North Carolina Granite Corporation

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SOLE PRODUCERS OF

MOUNT AIRY GRANITE

This is one of the whitest granites known.

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Alling Construction Co. Chicago
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Porcelain Enamel Paint
A *liquid tiling* applicable to plaster, brick, wood, metal.

Bessemer Paint
The rustproof paint for roofs, girders, columns, etc.

Special Technical Paints
For details see Sweet's Index, page 1003.

Sole Manufacturers
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We Do Landscape Work for Architects

Visit Nursery. Ask for Catalog.

BOBBINK & ATKINS

Nurserymen and Landscape Gardeners

RUTHERFORD, N. J.

COMPLETE ELECTRIC LIGHT PLANTS

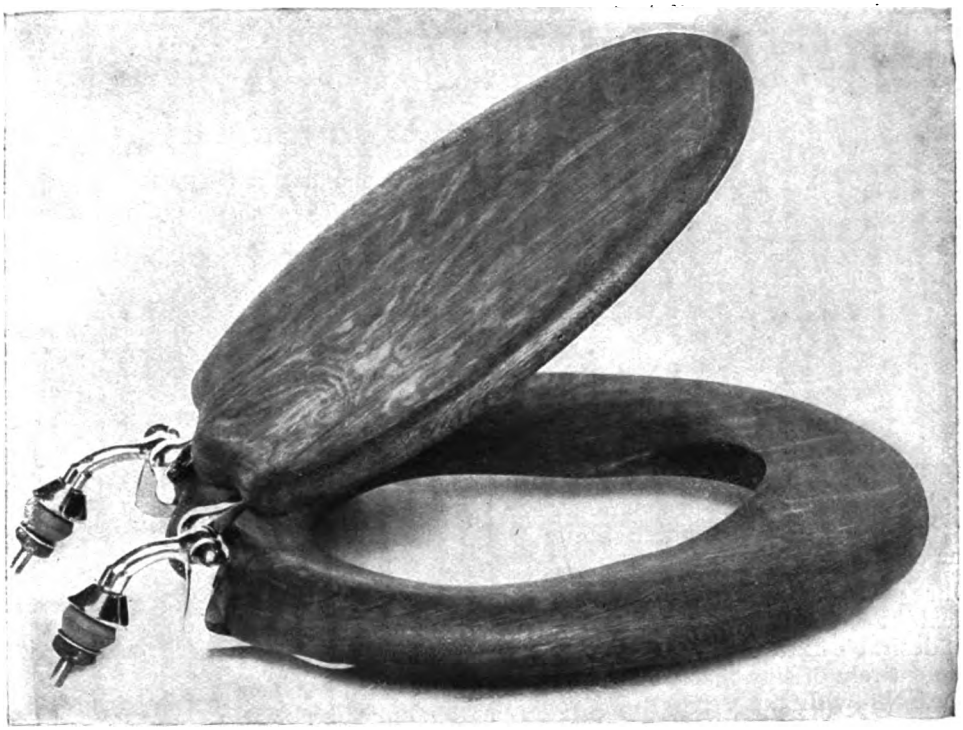
RICHARDSON ENGINEERING CO.

HARTFORD CONN.

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"Never-Split" Seat

Our Guarantee: The "Never-Split" Seats are guaranteed for five years not to split or come apart at the joints.
—Never-Split Seat Co., Evansville, Ind.



A Work of Dependable Utility

The above cut shows the finished "Never-Split" Seat

It will stand all kinds of usage, and, as its name implies, will never split or come apart at the joints.

The bolt in the wood makes our guarantee good.

It is the strongest, most durable and most sightly seat made.

The bolt in the wood makes our guarantee good.

It is the only ***sanitary*** wood seat on the market, and may be cleansed without dirt or septic matter gathering in the joints.

The bolt in the wood makes our guarantee good.

For specification requirements see page 8 of our Catalogue "C."

NEVER-SPLIT SEAT COMPANY
EVANSVILLE, INDIANA

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"Ideal"

Solid Porcelain for the Home Bathroom

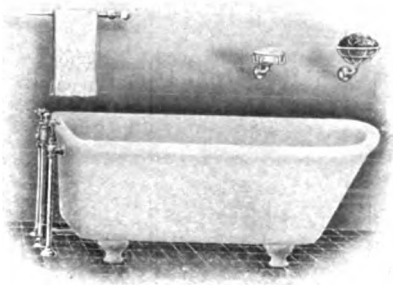


Plate 4-K

An "Ideal" Solid Porcelain Bathtub of light construction has become a necessity for installation in modern sanitary home bathrooms.

Our plate 4-K "French" pattern "Ideal" Solid Porcelain Bathtub is the most desirable fixture for your bathroom. Made entirely of clay materials, fired to a hardness with the strength of rock, with no metal to rust or corrode, no danger of peeling, as the glaze is an integral part of the fixture. Nothing can discolor the surface, as it is not affected by the action of acids from soaps or bath powders, and needs no cleaning preparation to keep its pure, white surface free from dirt.

Thousands are already giving genuine satisfaction in homes, apartments and hotels throughout the world.

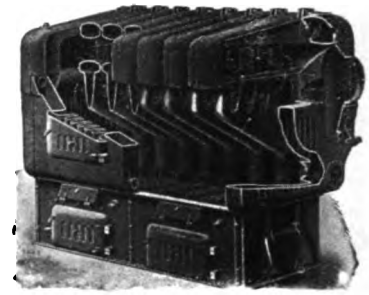
Send for Catalogue "P-K," showing representative fixtures from our complete line.

The Trenton Potteries Company

Main Offices & Works, Trenton, N. J., U.S.A.

THE CANADIAN TRENTON POTTERIES CO., Ltd.

St. Johns, Quebec



Architects of Repute

Have found the "**PROGRESS**" to be the one boiler suitable for all low pressure heating requirements.

Made in 78 convenient sizes. Steam up to 12,000 sq. ft., and Hot Water up to 20,000 sq. ft.

Especially adapted for the economical heating of schools, hospitals, libraries, and other large public buildings.

Send for interesting catalog.

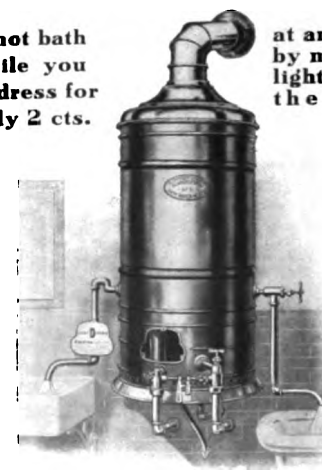
THATCHER FURNACE CO.

110-112-114-116 Beekman Street, New York
204 Lake Street : : : : : : : : : : : : : : Chicago
Established 1850.

Hot Water Instantly

A hot bath while you undress for only 2 cts.

at any time by merely lighting the gas



A Humphrey Instantaneous Water Heater in a bath room makes hot water always ready. Turn on and light the gas—it pours forth and runs as long as the gas and water are left on. No expense when not drawing hot water. Handsome, durable, inexpensive and economical. No dirt, no labor, no repairs. Always ready. Price $23.50 to $140. Tell us your needs; we will gladly recommend what will best supply them. Handsome catalog No. 9 is free for the asking.

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"Paragon" Patent Self Closing Work Leads

Beware of numerous so called Crown Handle Self Closing Work made by certain manufacturers. Our registered trade mark, "PARAGON," is your guarantee. See that this is stamped on all goods, and you will secure the best.

Read what the Seelbach Hotel, Louisville, Ky., have to say about

"PARAGON" Patent SELF CLOSING WORK



LOUIS SEELBACH, PRES'T & MANAGER. OTTO SEELBACH, V. P. SEC'Y & TREAS.

The Seelbach

COR. 4TH & WALNUT STREETS.

THE SEELBACH HOTEL CO., INCORPORATED. PROPRIETORS AND MANAGERS.

THE ONLY FIREPROOF HOTEL IN THE CITY

Louisville, Ky. July 2nd, 1908.

The Sanitary Company,
#1120-1122 Prospect Ave. S.E.
Cleveland, Ohio.

Gentlemen:-

We are in receipt of your favor of the 29th inst., making inquiry about the work furnished by your Company in the completion of "THE SEELBACH", three years ago. Your "PARAGON" self closing work, was used without exception throughout the Hotel, and after three years of heavy usage, we have had little or no trouble or expense on account of same.

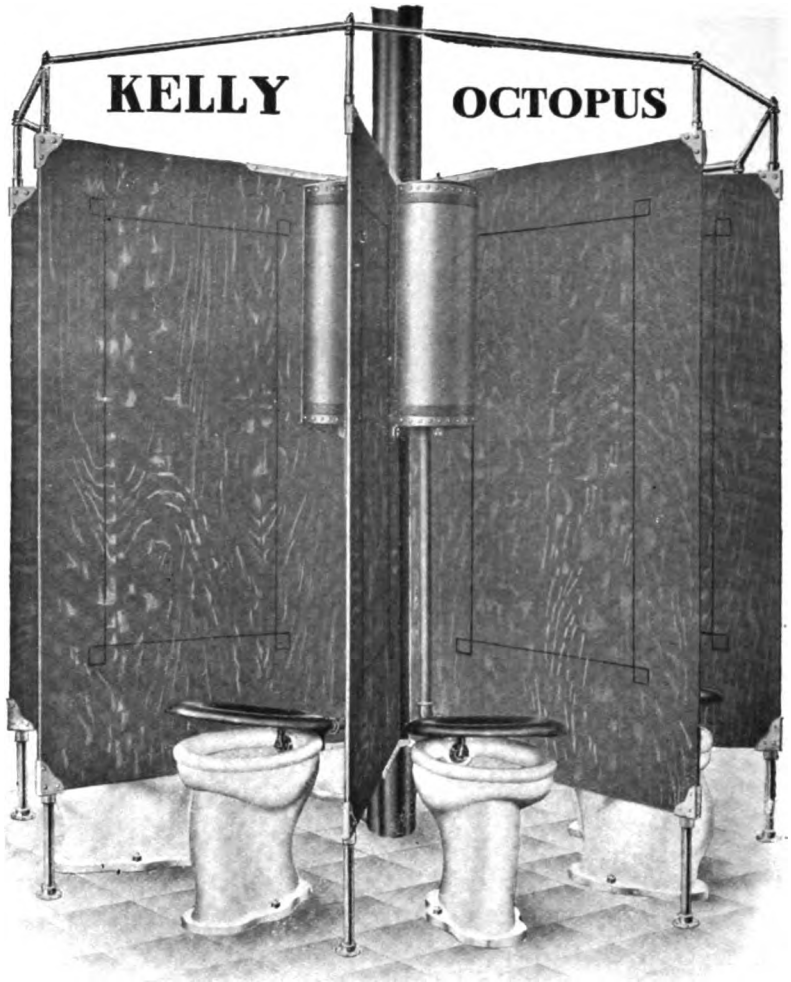
The degree of satisfaction experienced by us leads us to venture the statement that there is not a better nor more reliable cock on the market than yours. Our dealings with you have been very pleasant indeed, and you have carried out your agreement with us to the letter.

Yours very truly,
"THE SEELBACH HOTEL COMPANY"
PER Louis Seelbach
President.

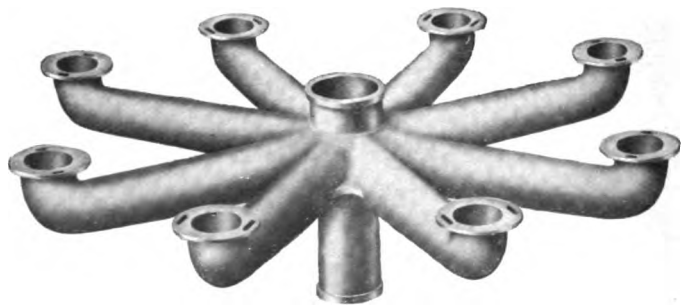
THE SANITARY CO., Cleveland, O., U.S.A.

Exclusive Makers of "PARAGON" Plumbers' Brass Goods

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The use of the Kelly Octopus fitting takes closets away from the walls and arranges them rationally in circles in the middle of the room, surrounded by light and air. The walls are left free for lavatories and windows.



Kelly Octopus fitting (patents applied for), when set in place, completes the roughing in for eight water closets. Note that this fitting is a one-piece casting

Each closet is 20 inches from the main stack, and has independent discharge into the stack. No back venting is required, and every closet has perfect ventilation—not possible with the customary runs of pipe.

Thos. Kelly & Bros. Congress Street and 46th Ave., Chicago

Tear Off This Coupon as a memo. to write Thos. Kelly & Bros., Chicago, for prices on the Kelly Octopus closet fitting. We will detail the application of this fitting for any public toilet room on receipt of blue prints.

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Mueller Colonial Plumbing Brass Goods

(Patented)



Self Closing, D-1200

Through education and training architects design homes and buildings embodying artistic characteristics, and by virtue of their knowledge and experience, offer valuable suggestions for harmonious interior fittings—except in plumbing brass goods.

This exception is no fault of the architect, but is the sequence of restricted efforts of manufacturers, which give only a few perfunctory patterns to choose from—patterns that perform a service without typifying anything outwardly.

In Mueller Colonial Plumbing Brass Goods we have deviated from these patterns, designing goods along artistic lines, and giving them outward strength, beauty and character. Their place is in the homes and buildings where refinement and good taste obtain.

Specimens of different lines are shown on pages 1269-1273 Sweet's Index, 1907-8 edition. Inquiries addressed to our Information Department will be given prompt attention.

H. Mueller Mfg. Co.

Works and General Offices
Decatur, Ill., U. S. A.
West Cerro Gordo Street

Eastern Division
New York, N. Y., U. S. A.
254 Canal St., cor. Lafayette

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THE CAHILL IRON WORKS

CHATTANOOGA, TENN.

"Southern Beauty" Lavatories



REGISTERED TRADE MARK

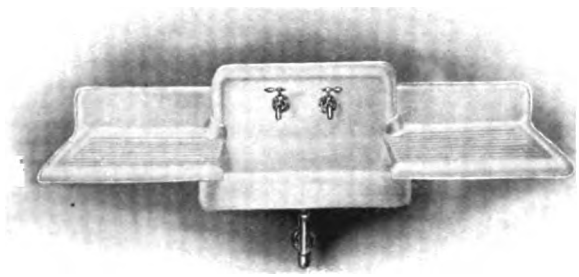


PLATE D-94 [Patent applied for]

One Piece Roll Rim and Apron Kitchen Sinks, etc.

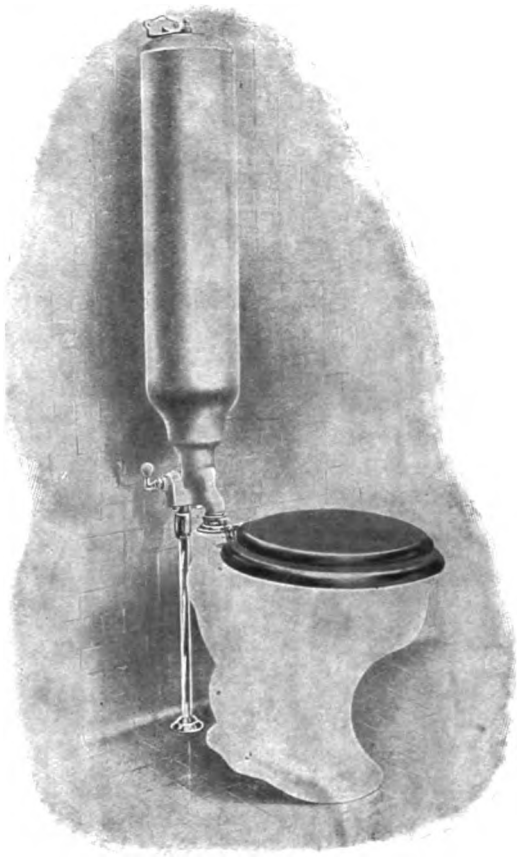
OUR new "Chattanooga" sink combination with right and left drain boards. Nothing similar made by any other manufacturer. Sink, back and apron cast integral; drain board and 8-inch back cast integral. Sink and drain boards supported by concealed wall hangers. We also make this sink with corner piece cast integral for either right or left corner; made in several sizes, and can be furnished with one or two drain boards. Lists and full description given in our catalogue "D," copy of which we will be glad to furnish on application.

New York Office and Show Rooms:
101 Beekman Street
Thos. H. Hutchinson
Sales Manager

THE CAHILL IRON WORKS
No. 10 14th Street, CHATTANOOGA, TENN.

San Francisco Office
2006 Bush Street
CULIN & STANYAN
Sales Agents

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The Unique Water Closet

does away with the unsanitary germ collecting box tank. In fact, it meets all requirements of perfect sanitary construction.

Tank can be connected to seat, as shown above, or concealed, for there are no parts to get out of order and require attention.

Tank is always filled and ready to deliver a strong, positive flush with the full pressure of the water system.

Features

Operates with less water than box tank
Guaranteed not to leak
No complicated parts to get out of order
No hammering in pipes
Noiseless in refilling
Extremely simple in construction

THE UNIQUE is the most perfect closet for use where the water pressure is not less than 15 pounds.

Send for catalogue giving illustrated description of details.

STAPLES VALVE CO. TRADE Unique MARK NEWBURGH, N.Y.

TRADE MARK.

STAPLES VALVE CO., Newburgh, N. Y.

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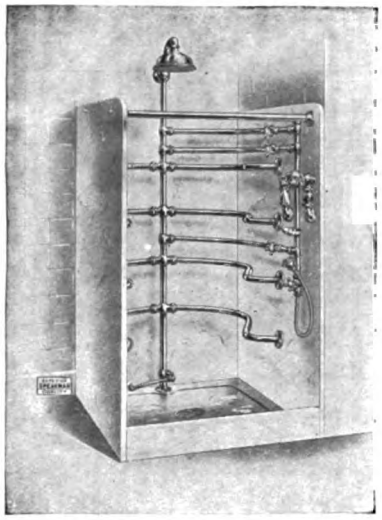


Figure 1016. List $200
Marble Stall not included

SEE
PAGE
85
in
SWEET'S
Vol. II.

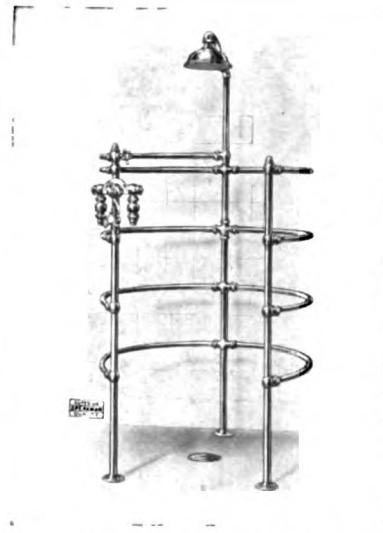


Figure 1018. List $105

ECONOMY in the use of water is quite an item where a number of showers are to be installed in an institution. The shortest space of time in which a number of persons can bathe is another item. Speakman's Showers equipped with our Non-Scalding Regulating Valve are the best for institutions where these conditions are important.

We are manufacturers of the largest line of showers made.

Please write us for our catalogue "G"

SPEAKMAN SUPPLY & PIPE CO.

Riverview Works
Wilmington, Del.

OFFICES

156 Fifth Avenue, New York City
(Albert G. Weber)

Monadnock Bldg., San Francisco, Cal.
(W. E. Gilchrist)



Figure 1000
List $25.50

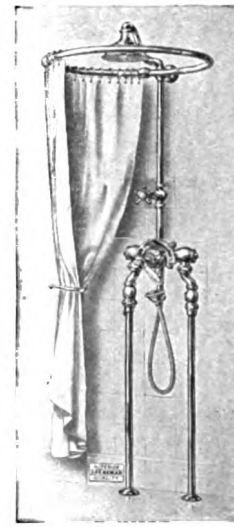
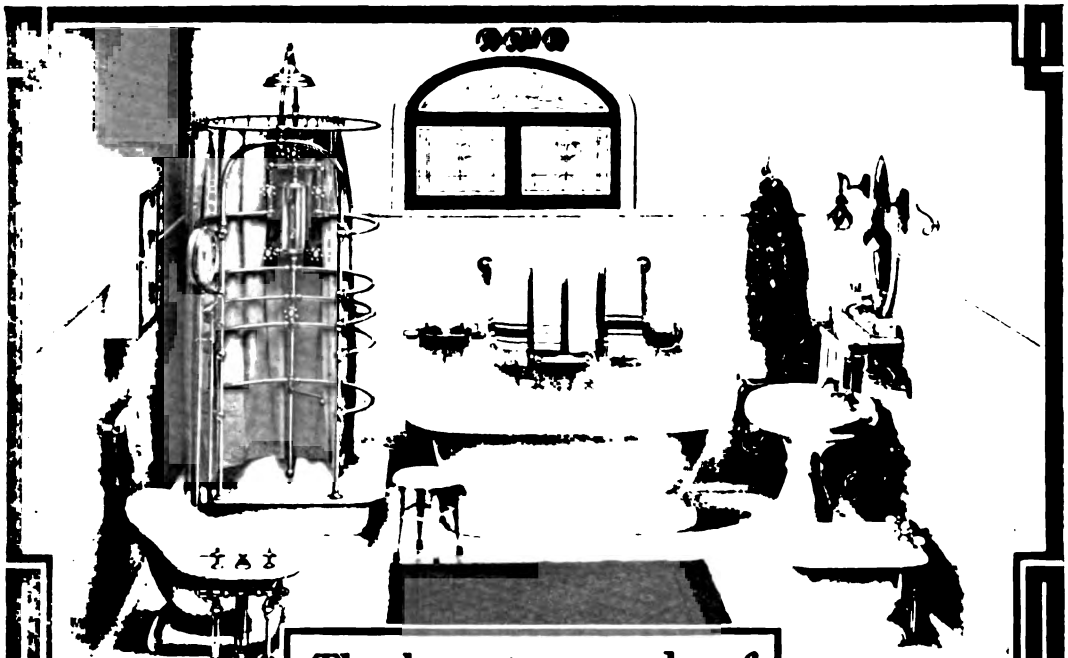


Figure 1006
List $48

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The latest example of the Sanitary Modern Bathroom completely equipped with

"Standard"

Green & Gold Label Plumbing Fixtures

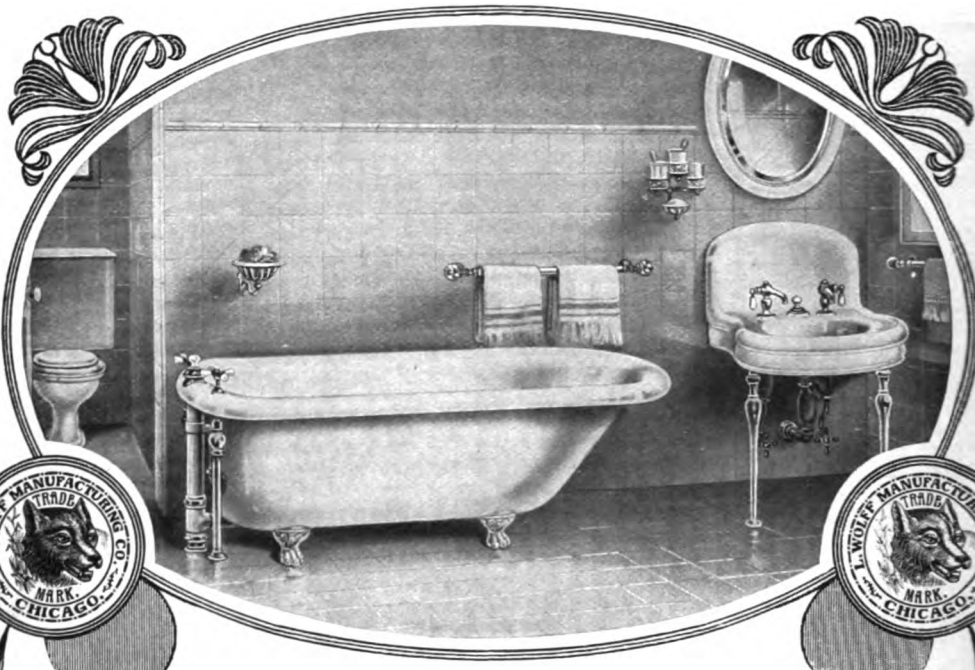
In a new edition of our beautiful 100-page book—"MODERN BATHROOMS"—there are a number of bathrooms, both elaborate and inexpensive, splendidly illustrated and described in detail. If you are building a new house, we will gladly send your client a copy of this book to facilitate the selection of his sanitary equipment. The prices of the bathrooms, complete, range from $69 to $542. Each equipment is the best and most economical it is possible to secure at its price. You should see that this book is in your client's hands before he makes his selection. Send us his name and address and we will forward a copy at once.

Address **Standard Sanitary Mfg. Co.** Dept. 5, Pittsburgh, Pa., U. S. A.

Offices and Showrooms in New York: "Standard" Building, 35-37 West 31st Street.

Louisville: 325-329 West Main Street.
London, Eng.: 22 Holborn Viaduct, E. C.
Pittsburgh: 949 Penn Avenue
New Orleans: Cor. Baronne & St. Josephs Sts.
Cleveland: 648-652 Huron Road, S. E.

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"Guaranteed"

Architects are cautioned that there are many **guarantee** labels being used on porcelain enameled iron plumbing fixtures, and that, in accepting a **guaranteed** tub, it will be the part of caution to identify the firm issuing the **guarantee label** as financial responsibility and record of having made good, in a broad way, all that a guarantee label both states and implies.

The **Wolff Guarantee** is fifty-three years old, and during that time has made a reputation for itself unique in the relation of a manufacturer to his product.

The cost of tearing out and replacing imperfect plumbing fixtures is so great that a guarantee label must have a broader meaning on plumbing equipment than on any other branch of building equipment. The guarantee label that is not backed by reputation and undoubted financial responsibility is indeed an empty statement.

53 years of Quality **Established 1855**

L. Wolff Manufacturing Co.

MANUFACTURERS OF

Plumbing Goods Exclusively

The only complete line made by any one firm

DENVER **Showrooms, 91 Dearborn St., Chicago** **TRENTON**

If you wish the most complete Plumbing Catalogue ever issued, send us a copy of your letterhead at once.

H

The new 1908 Catalogue of L. Wolff Manufacturing Co. Should be in every office.

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Luxfer



Sidewalk Prism

DO YOU want to know about prism glass? Our booklet called "Daylighting" tells the story.

Prism glass used in the transom sash of stores and in the top sash of windows in schools, factories, lofts, etc., will save the first cost in one year.

New methods of manufacture have made the cost nominal.

No architect, owner or builder should fail to use it.

Send sizes for prices.
The best is always to be had promptly from

AMERICAN Luxfer Prism COMPANY

CHICAGO, Heyworth Building
BOSTON, 49 Federal Street
BALTIMORE, 32 Builders' Exc.
CLEVELAND, 1022 Garfield Building
CINCINNATI, 31 Thoms Bldg.
DULUTH, 106 W. Michigan St.
INDIANAPOLIS, 342 E. Washington St.
KANSAS CITY, 948 N. Y. Life Bldg.
LOS ANGELES, 232 Bradbury Bldg.
MILWAUKEE, 1112 Railway Exc.
NEW YORK, 507 W. Broadway
NEW ORLEANS, 904 Hennen Bldg.
PITTSBURG, 1022 Fulton Bldg.
PHILADELPHIA, 608 Chestnut St.
ROCHESTER, 38 Exchange St.
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TO OUR PATRONS AND FRIENDS:

WE TAKE PLEASURE IN ANNOUNCING THE CONSOLIDATION OF THE

FEDERAL COMPANY OF CHICAGO

AND THE

HENRY HUBER COMPANY OF NEW YORK

UNDER THE TITLE OF

FEDERAL-HUBER COMPANY

SINCE THE ESTABLISHMENT OF OUR RESPECTIVE BUSINESSES IN 1857 AND 1876 WE HAVE EVER STRIVEN TO EXCEL IN THE MANUFACTURE OF PLUMBING FIXTURES, TO MAKE OUR PRICES AS REASONABLE AS WAS CONSISTENT WITH GOOD WORKMANSHIP, AND TO APPRECIATE SMALL ORDERS AS WELL AS LARGE.

THE MANY PROMINENT HOTELS, OFFICE BUILDINGS, PUBLIC INSTITUTIONS AND RESIDENCES, BOTH THROUGHOUT THE UNITED STATES AND ABROAD, THAT HAVE BEEN EXCLUSIVELY EQUIPPED WITH THE FIXTURES MANUFACTURED AT OUR FACTORIES, AMPLY ATTEST THE EXCELLENCE OF OUR WARES.

ASSURING YOU OF OUR CONTINUED EFFORTS TO MAINTAIN THE STANDARD OF OUR FIXTURES AND TO UPHOLD OUR UNITED REPUTATIONS FOR FAIR DEALING, GOOD WORKMANSHIP AND PROMPT DELIVERIES, WE BESPEAK FOR THE CONSOLIDATED COMPANY A CONTINUANCE OF YOUR VALUED PATRONAGE.

FEDERAL COMPANY.
HENRY HUBER COMPANY.

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NOVEMBER

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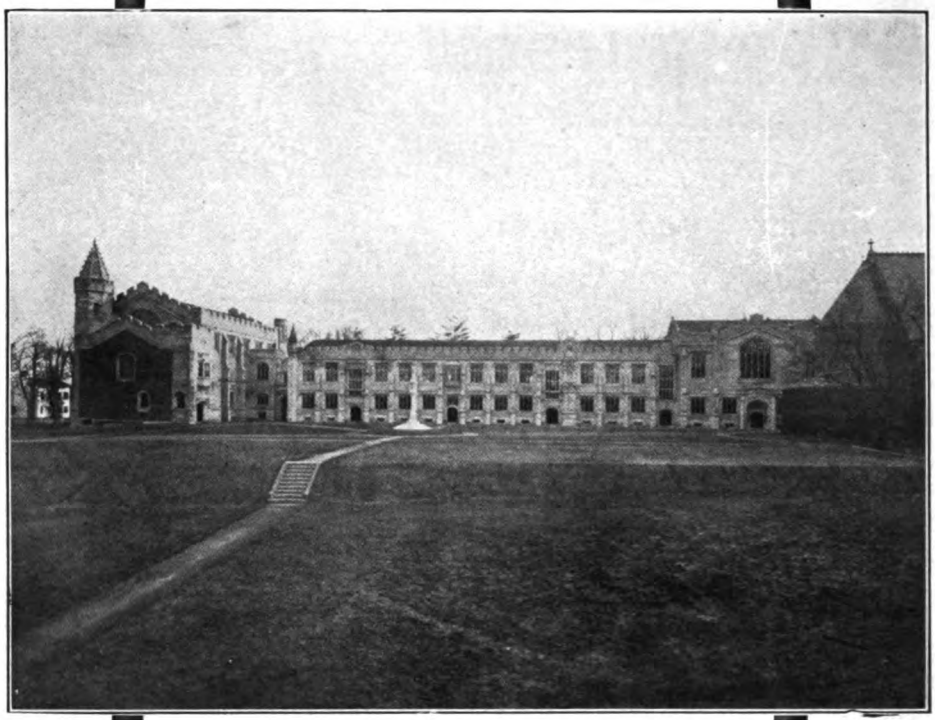
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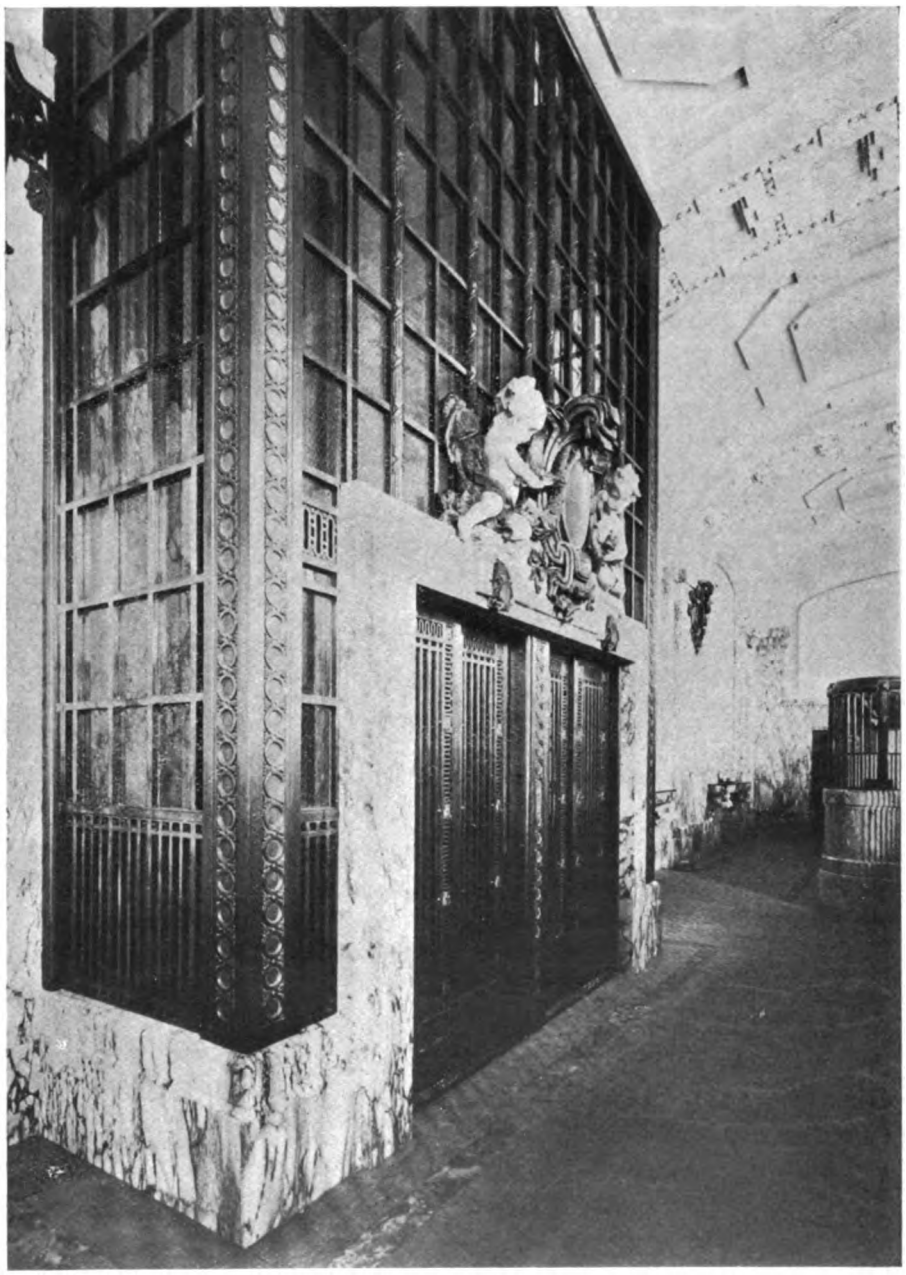


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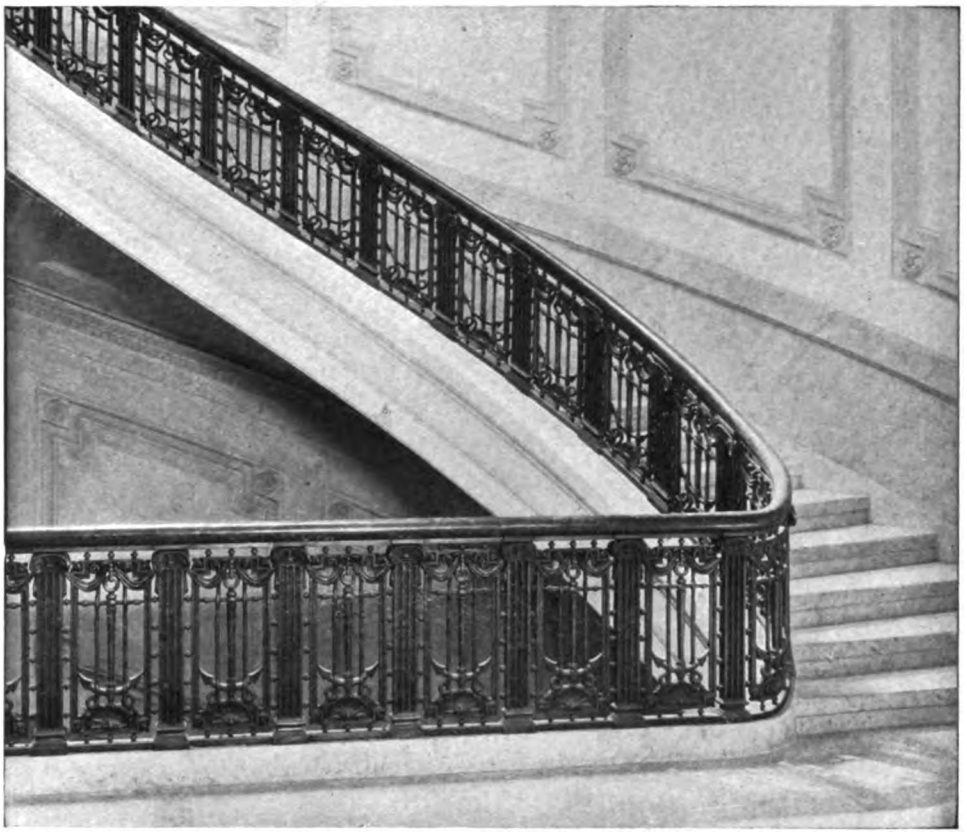
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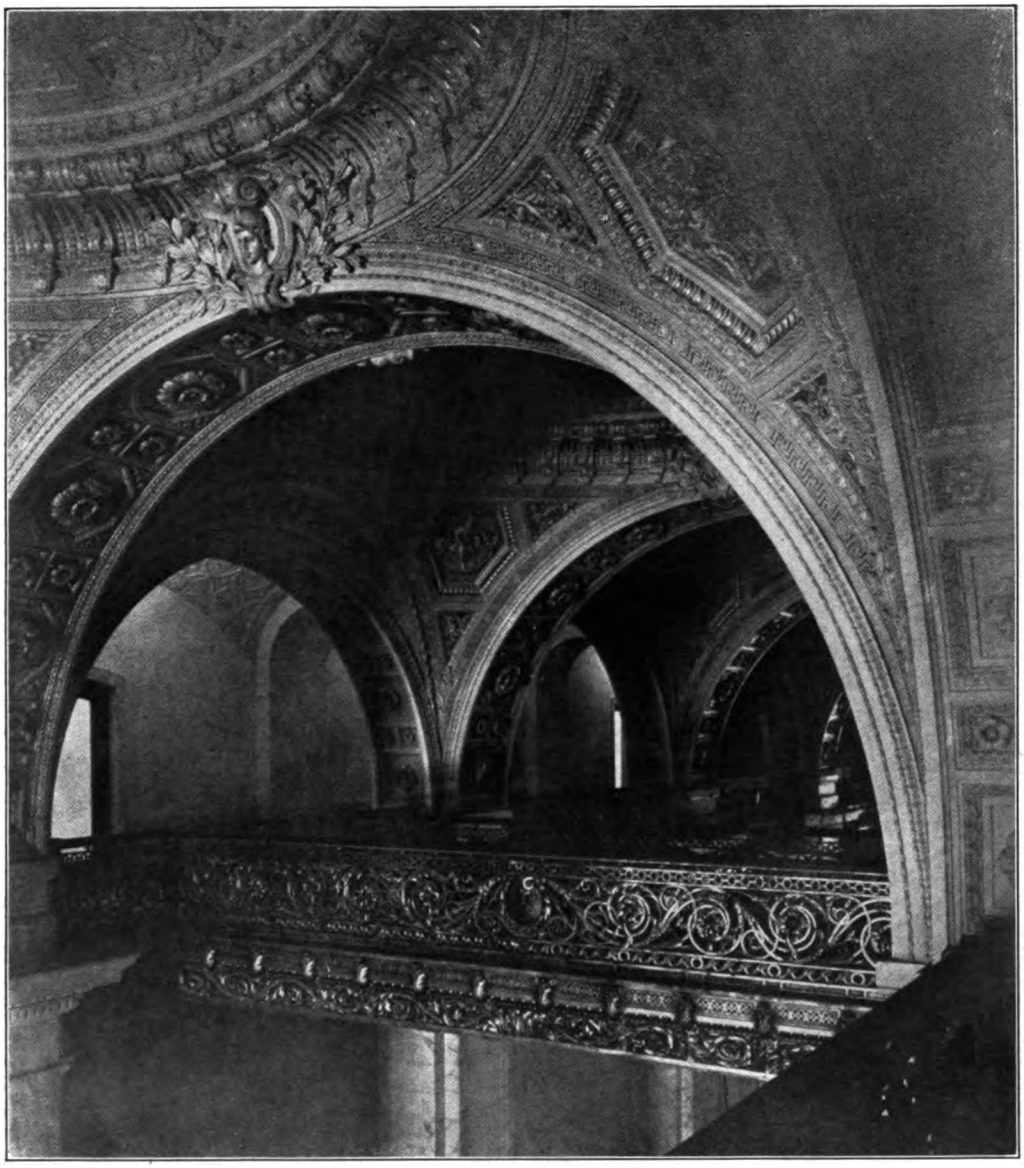
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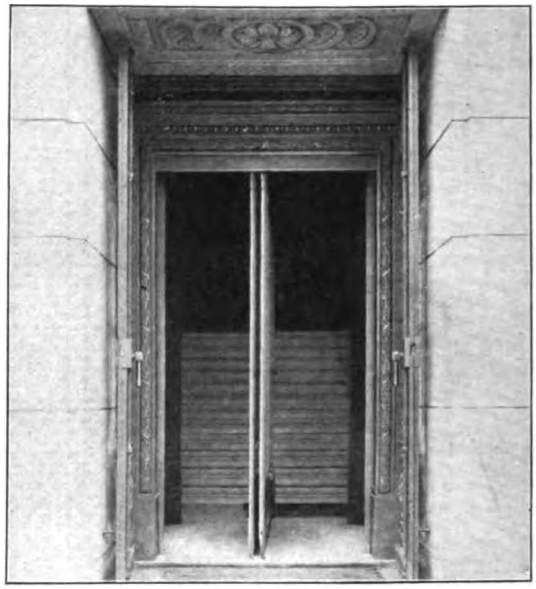
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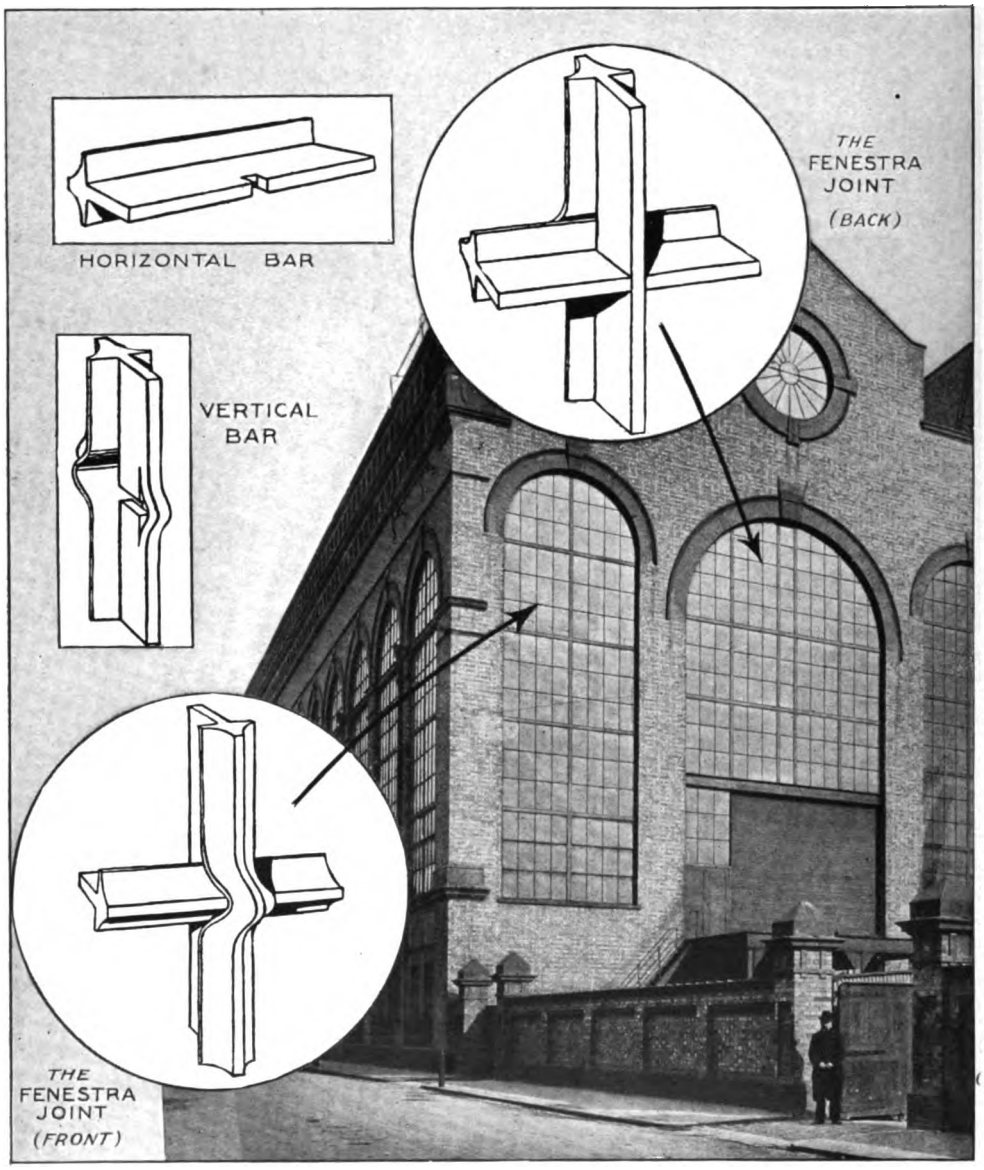
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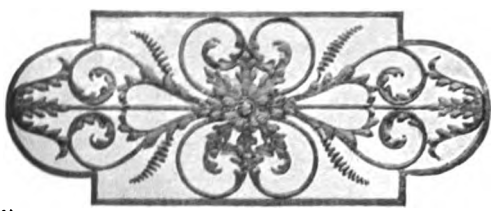
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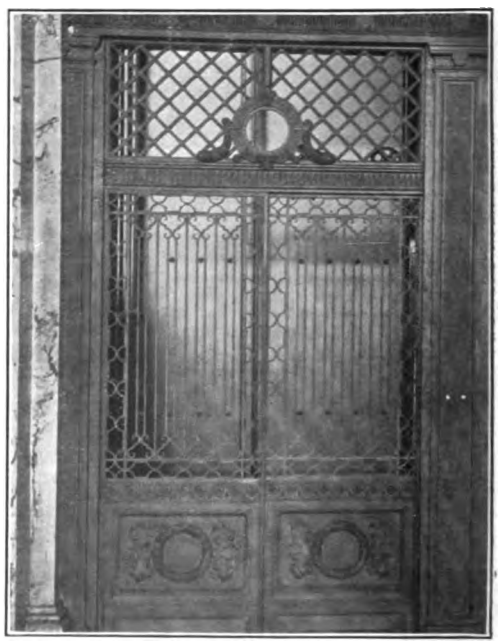
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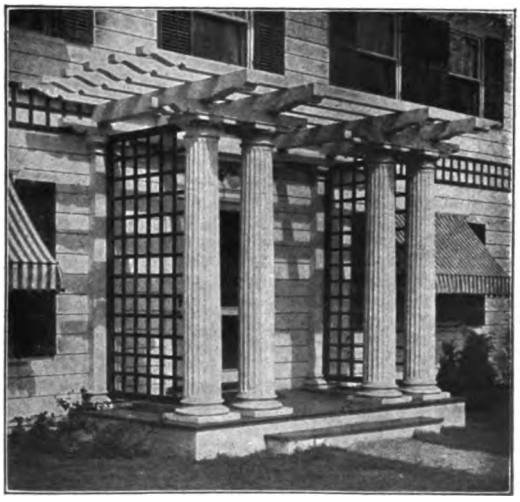
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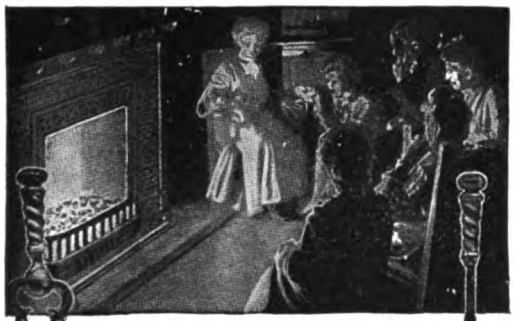
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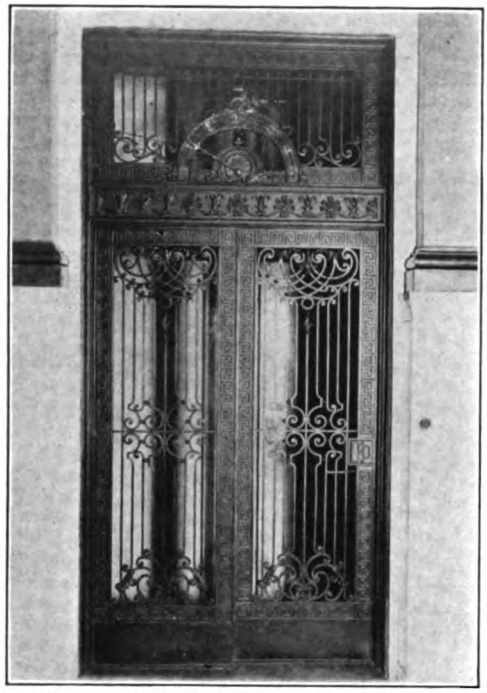
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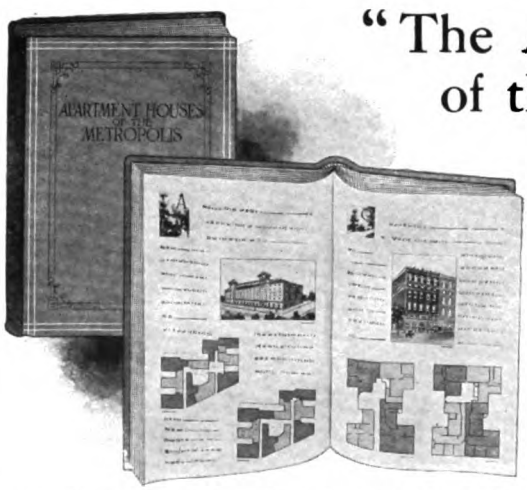
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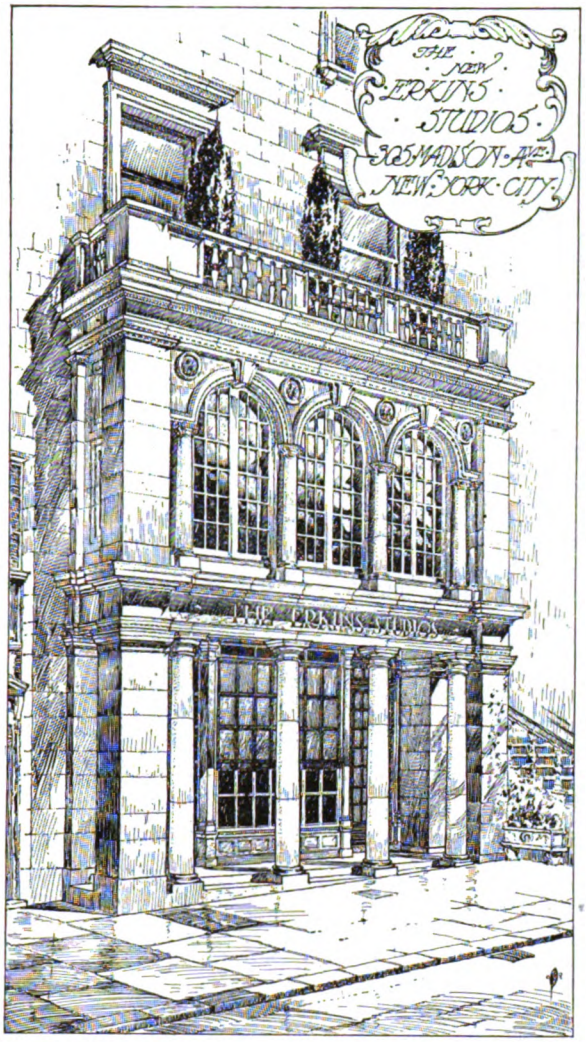
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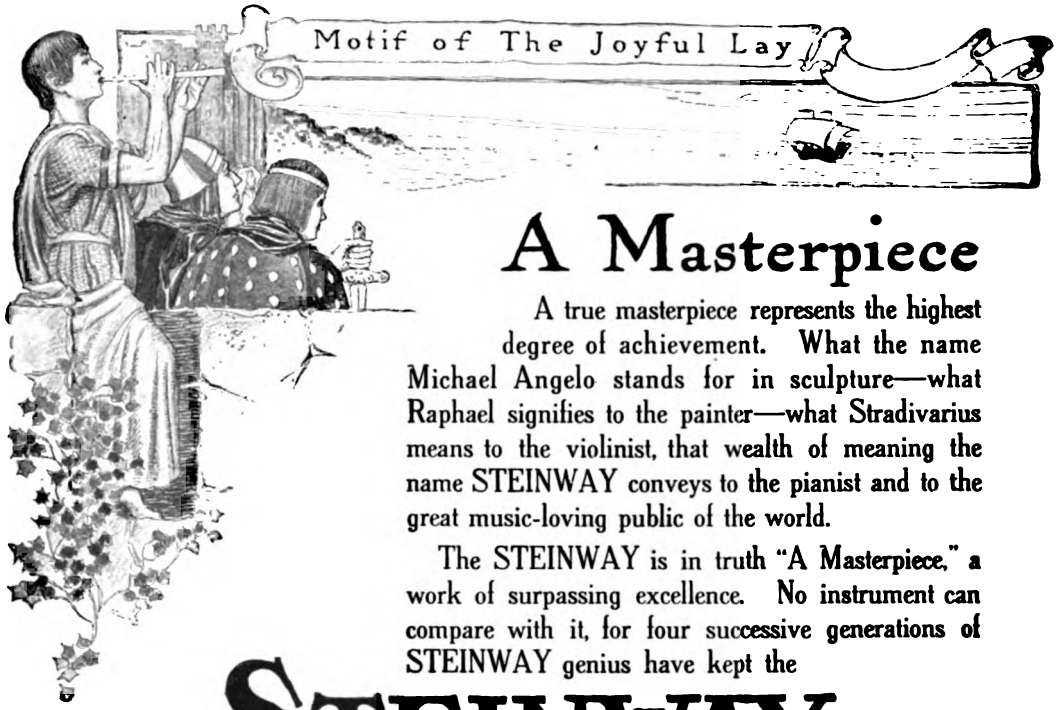
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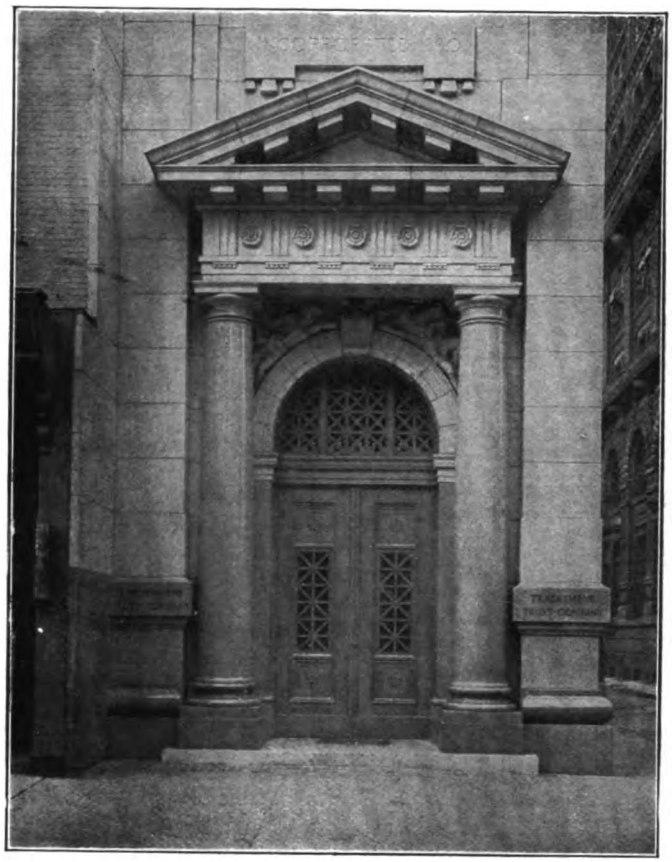
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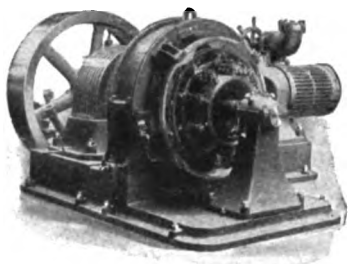
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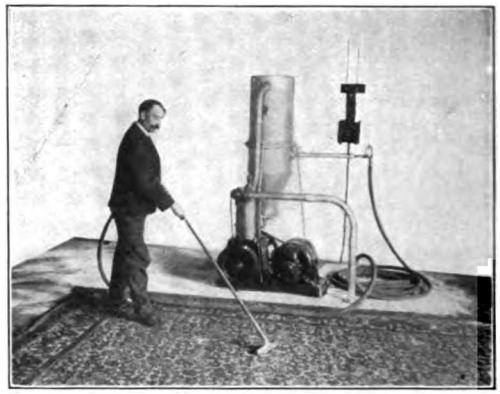
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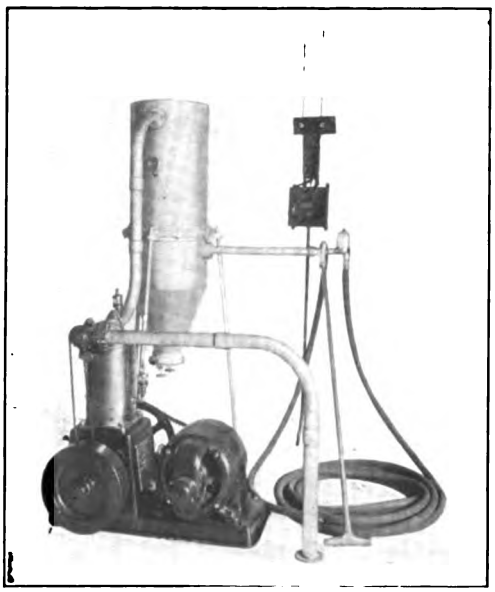
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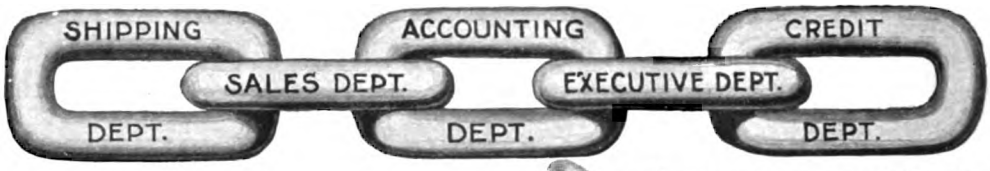
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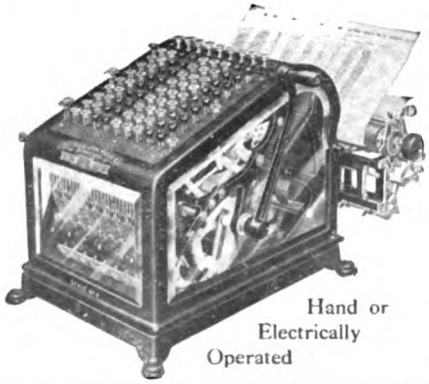
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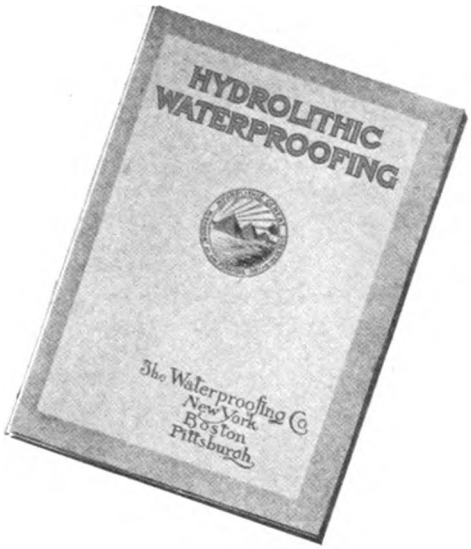
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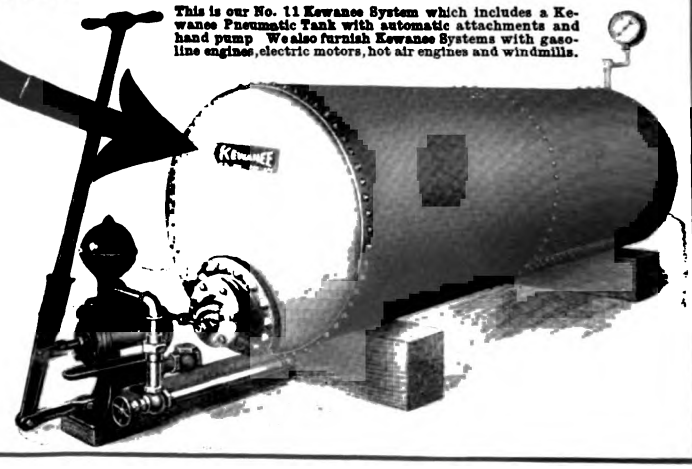
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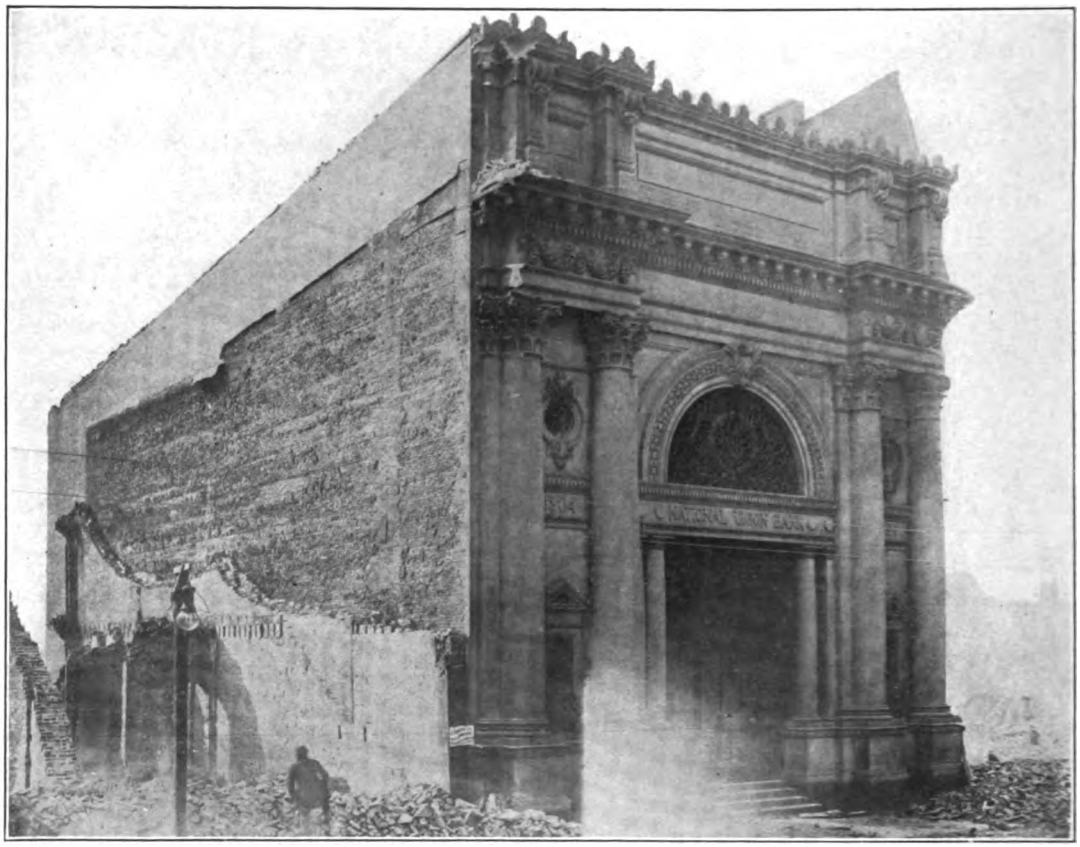
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From photo taken immediately after the fire, showing preservation of all detail cut from "Old Hoosier" Bedford Complete destruction of adjacent buildings proves great heat.

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THEATRE AT SYRACUSE (VTH CENTURY). Designed by the Architect Demokopos.

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Greek Architects, Contractors and Building Operations

II.

(Continued from the February issue.)

DRAWINGS AND MODELS.—In this connection the question of working drawings and models must be mentioned. The second attainment of an architect, according to Vitruvius, should be skilful draughtsmanship. He classified drawings under (a) ground-plans; (b) geometrical drawings of elevations and sections, and (c) shaded drawings in perspective; all of which were required for any building. Besides this, it was also quite common to make models of buildings to scale. Plato more than hints at the excellence of such drawings when he says in his *Republic*: "If one should meet with geometrical figures drawn remarkably well and elaborately by Daedalus or some other artist or painter, a man who was skilled in geometry on seeing them would truly think the workmanship most excellent."

Proficiency in such drawings presupposed proficiency in the study of mathematics applied to architecture, and of this the Greeks might be charged with an excess rather than a deficiency, ever since the time when the earlier Pythagorean studies were carried forward by such scientific men as Anaxagoras and Democritus, and their results worked into the very life of architecture by the men of the Periclean age. The danger of a mechanical application was diminished by the delicacy of the Greek plastic sense expressed, for example, in the distinction made by Plato, and recognized even as late as Vitruvius, between two kinds of proportions in architecture: (1) the absolute proportions of beauty as a type, irrespective of circumstances; (2) the relative proportions resulting from modifications of the absolute in each special case to suit the environment, and to meet which the original drawings of the architect were sometimes modified. Vitruvius gives quite an array of Greeks who wrote on the theory of proportions, on perspective, on optics, on mechanics, and among these names are a number of prominent architects, who helped to harmonize mathematics and æsthetics. These lost works would doubtless have explained the theory of the facts proved by the studies of Penrose, Pennethorne, Aures and other recent writers: the curves in horizontal and vertical lines, the variations in plan (e. g. in intercolumniations) imagined by Greek architects of the golden age, both to correct and to produce optical effects.

Models of various sorts were made. The decorators of the ceiling of the Erechtheion made wax models of the acanthi and rosettes for its compartments. Such a *typos* was also furnished for the frieze. Philo furnished not only a general model (*paradigma*) of his arsenal, but special models for parts of the

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interior. Vitruvius relates an amusing anecdote in connection with a model prepared by an engineer of Rhodes. At the time when the famous King Demetrius, "the Taker of Cities," was threatening Rhodes, the architect of the city, employed permanently, at a fixed salary, was Diognetus. An architect named Callias came from Aradus and exhibited to the admiring Rhodians the model of a section of city wall on which was a revolving crane, by means of which the besieged could seize with a hook any *helepolis* (machine for casting enormous stones) that the besiegers should bring near the wall. By the fame of this model he ousted Diognetus and took his place; but only for a short time, for when the siege came and he had a real helepolis confronting him weighing 360,000 lbs. he was unable to construct a sufficiently powerful crane to tackle it.

In the accounts of the temple of Delphi the item of 17 staters appears in payment for the model of a lion's head for the water spouts. In the construction of the temple of Asklepios at Epidauros the artist, Timotheos, contracted to supply for 900 drachmas the (wax?) models for the gable sculptures which five artists then sculptured at a cost of 9,000 drachmas, showing that here the cost of the models was 10 per cent. Timotheos executed the *acroteria* on one end with his own hands and furnished models for the rest, supervising their execution. That he was. though, then quite young, a noted artist, is shown by the fact that some 20 years after, he was given the contract to make the sculptures for one of the faces of the Mausoleum of Halicarnassus.

After this digression on the drawings, models and mathematical studies of Greek architects I shall resume the survey of the contract.

LEGAL CLAUSES GOVERNING CONTRACTS.—The third section of the full contract relates to the legal clauses governing the work. These may be divided into general and special. To the first class belong the regulations governing constructive work in the various cities and states of Hellas; to the second any special regulations enacted for the case in hand.

A good example of the first class are the *building regulations of the City of* TEGEA, which read as follows:

"§1. The Commissioners shall decide all contests that may arise between contractors who have undertaken a work in common. The aggrieved party shall prosecute within three days of the grievance or not at all, and the decision of the Commissioners shall be without appeal.

"§2. In case war should prevent the carrying out of part of the work contracted, or should cause damage to work already done, the Three Hundred shall decide what is to be done, on motion of the War Commissioners. . . . But in case work was not begun when war broke out, let whoever had taken charge of it return any money paid to him, if it be so decided by the Commissioners.

"§3. If any one oppose the Commissioners or damage the work in any way, let the Commissioners impose on him a suitable fine and cite him by herald before the proper court for confirmation of their sentence.

"§4. Not more than two persons shall be allowed to go into partnership for the execution of any one work. Should this happen, a fine of 50 drachmas shall be imposed on each person, to be collected by the Heliasts, half of it to go to the person denouncing. Similarly, no one person shall be allowed to go on more than two contracts at a time, whether religious or civil, unless an exception be made by unanimous vote of the Heliasts. For each contract beyond this a fine of 50 drachmas per month shall be imposed until such contract shall be given up.

"§5. In case of dispute between a contractor and the Commissioners, the contractor must lay the matter before the proper court in Tegea itself and not elsewhere. But if he appeal elsewhere he shall be fined double the amount which he may claim, and this amount shall be guaranteed by the same person who became the contractor's surety for the execution of the work.

"§6. If any person, having contracted to do any work, shall damage a work pre-

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viously existing, whether religious or public or private, contrary to the terms of the contract, he shall make good what he has damaged at his own expense; and, if he does not, he shall come under the clause imposing a fine for delayed work.

"§7. If any contractors or workmen impede the work, do not obey the inspectors, or pay the fines imposed, the Commissioners shall have full power to expel the workmen from the works and to impose a fine on the contractor.

"§8. The above regulations operate for all public works, whether religious or civil, that may be contracted for, and should be added to the clauses of each contract."

BUILDING LAWS.—Besides such regulations describing the administrative and punitive conditions, there were in other cities other kinds of legal enactments, relating, for instance, to *materials* of construction, such as the law of Utica forbidding the use of brick less than two years old; or to *location*, such as laws forbidding the use of party walls in private houses; or to *financial responsibility*, such as the law of Ephesus holding the architect liable for an unreasonable excess of cost over estimate; or the *privileges* granted to contractors, such as the *asulia*, by which the contractors and even their workmen were exempted from the right of seizure to which they would otherwise be liable on the complaint of any citizen of the city where they were working who might have a claim against any fellow citizen of these contractors or workmen.



MODEL OF CIRCULAR GREEK MAUSOLEUM.
(From Greek relief in Louvre.)
Showing the sort of model made by Greek architects.

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CONTRACT PROPER. — Finally, the fourth section consists of the *contract* proper. Plato recognized two classes of contracts—that where the contractor gives his work in advance, and that in which the employer makes the payment in advance. In the first instance the employer in case he delays payment is condemned to pay double, and after a year's delay to a heavy monthly interest payment of 16% per month! In the second instance the contractor, in case he delays delivery without just cause, shall return the amount paid him and shall complete the work without charge. As a matter of fact the financial penalties of the actual laws as we know them were not nearly as severe as Plato would have them.

PRINCIPLE OF PREPAYMENT.—In fact, the inscriptions show that the most characteristic financial feature of contracts, as a rule, is that they were on the basis of prepayment for all work, instead of, as in modern contracts, on the basis of material provided and work already done. The contractor worked, in other words, with his employer's capital. This concession to contractors, who would often have been otherwise unable, through want of capital, to undertake the work, was shorn of dangerous consequences to the employer by the extremely strict system of bondsmen guaranteeing against any possible contingency of loss, a system that seems to have admitted of no exceptions in public contracts. It is illustrated in the Tegean regulations already quoted.

A very good reason for not taking account, in the financial arrangements of the contract, of materials furnished by the contractor, is that the general rule was that the contractor should not supply material of any sort; all of it was furnished by the state or corporation.

DISTINCTION BETWEEN CONSTRUCTION AND DECORATION.—Another point that must be emphasized is the sharp distinction between construction and decoration. They were two operations so separated in point of time that they could be taken care of in separate contracts. A building was entirely constructed from bottom to top before any part was finished off.

There were, therefore, the three stages: (a) *Materials,* furnished by the state, which pays directly for this part of the work, separately from the contract for construction; (b) the *constructive* stage of the building, according to the specifications and contract approved by the people or magistrates; (c) the *decorative* stage, usually given out to many individual workmen or small contractors, paid directly by the state.

By means of the financial reports of the Commission we can follow all these stages. We see how all material was not only sent in the rough to the site, but was put in place in the rough. In the case of temples the drums of the columns, the blocks of the architraves, the lintels, and the rest of the superstructure were hoisted into place by means of the handle-like projections called *ancones,* which were left on each piece when quarried and cut away only after the entire building was constructed.

Usually nothing except occasionally the capitals,—for Doric capitals had to be turned,—was finished before placing. Even the pavement blocks were left rough, and with a considerable surface to be cut away, except at the points marked for the columns, where enough was cut down to reach the finished level within a space merely large enough to allow of the setting up of the shaft. Except for a short fluting at the very top and bottom, the shafts when erected were plain unfluted cylinders.

It was only after the roof had been completed that the decorators and finishers commenced work at the very top. The architect marked all the mathematical refinements of entasis and curvatures on the rough surfaces. The marble and stone cutters then worked down the surfaces; the sculptors finished the mouldings, friezes and other decorative and figured details; to be followed step by step by plasterers for the crude stone surfaces, by modelers and decorative painters.

The various stages in this succession are proved to us not only by documents, but by buildings that have happened to

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retain various unfinished features, from the unchanneled columns of the Doric temple of Segesta in Sicily, to the unfinished pavement of the Propylaea at Athens.

MACHINERY AND TOOLS.—As for the machinery, tools and other apparatus and accessories, only a brief sketch will be in order, because we have so little information at first hand except what is documentary. Of the tools I shall speak in my next paper, on Roman architects, because there was but little difference between those used by Greek and Roman architects, and some of the Roman tools remain.

Of course the Greeks used the obvious things: such as scaffolds, inclined planes and ladders. Plenty of texts mention them. They also had hoisting machines of considerable power—cranes and windlasses. Expenses for them are itemized in the official accounts, such as those of Delphi. Vitruvius describes them, and they are illustrated in Roman reliefs, so I shall leave them for future description. He describes only fixed machines, but there were also revolving cranes. The Greek methods of transporting heavy stone were for some time rather primitive. Vitruvius relates the invention by Chersiphron (VI. c. B. C.) of a way to move the column drums from the quarry by soldering a pivot in each end fitted into gudgeons fastened to a heavy timber frame after the fashion of steam-rollers, and drawn by oxen; also how the heavy blocks for the entablature of the same temple were suspended in the same way to wheels.

When one stops a moment to reflect, it is evident that Greek architects did not, after all, require elaborate or powerful machinery, for their buildings were neither high nor constructed of large units. Their columns were never monoliths, but built up of several drums, and their entablature blocks were the largest units to be handled. The universal use of the horizontal line and the absence of vaulting simplified the difficulties of construction. For one thing, however, the roads—in contrast to the superb Roman system—were so bad as to make the hauling of material expensive and difficult. It took a long line of 37 to 40 pr. of oxen three days to draw a single drum of a column a distance of seven miles to the site of the temple of Eleusis!

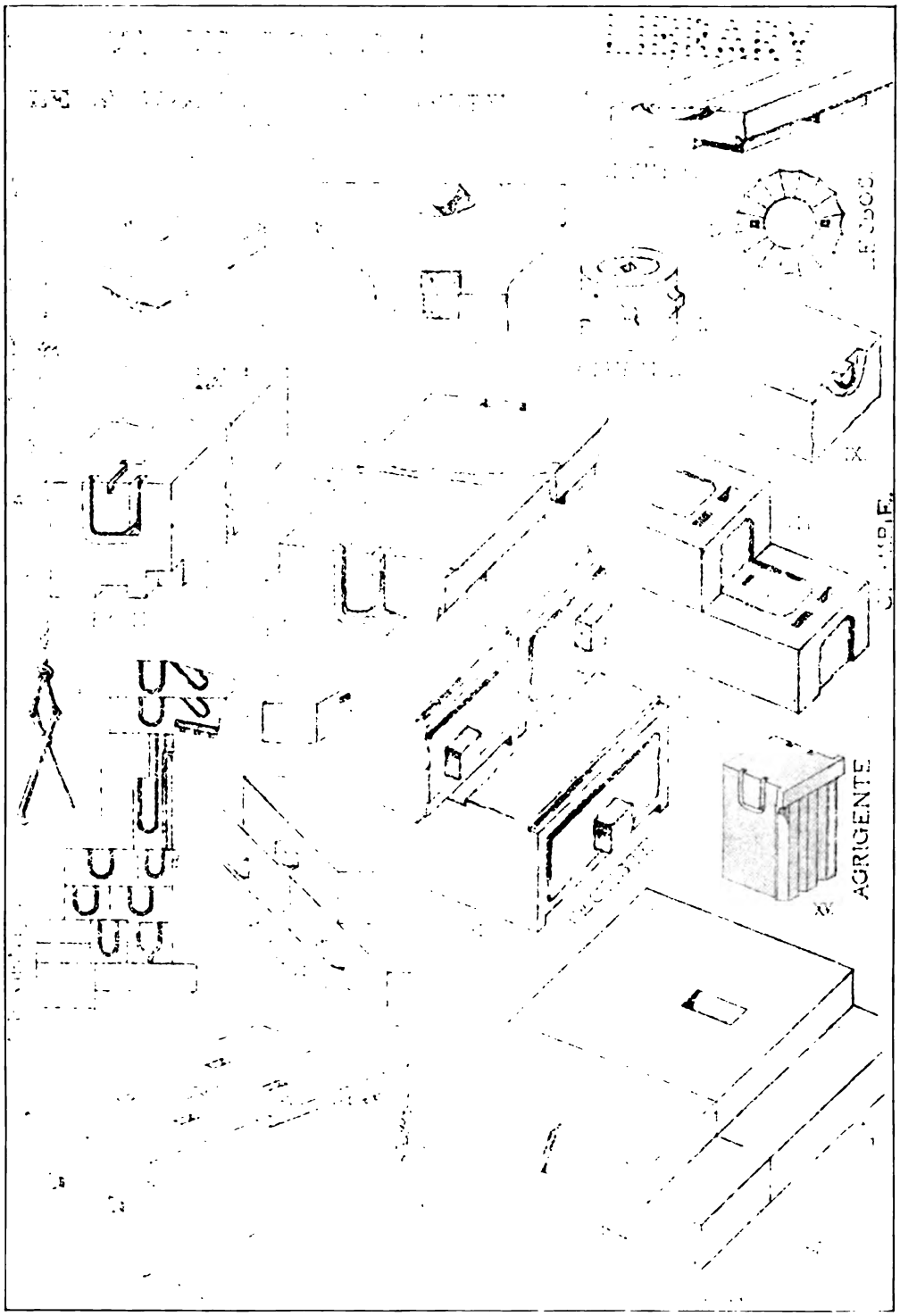
PLUMB AND LEVEL.—The Greeks had, of course, the *plumb* and the *level,* and they verified surfaces very carefully with stone rules rubbed in a mixture of oil and *sanguigne,* a process which is specified in more than one contract. They used also the square wooden rule, the compass and the cord. They had every variety of stone-cutting implements, hammers and chisels of many forms, and each with its special name. In the Lebadeia contracts for the laying of stone slabs the instruments to be used in each part of the work are specified by name. Some of these will be mentioned under Roman architects. More than one mechanical device has been found to be a valuable indication of the age of a building. For example, the metal cramps that hold the masonry blocks together vary in material and in shape at different times. In the VI cent. they are ⌐¬ shaped and made of iron; in the V cent. they become first of this shape, ⊢¬ and at the Parthenon ⊢⊣ , and are usually bronze or copper. The lack of any mention of mortar or cement in Greek specifications is natural because the masonry was bound together with nothing but wooden coins or with these leaded metal cramps

In general, the absence in the builder's specifications of allusions to either the materials or the decorations are therefore fully explained by the fact that the materials were furnished to him by the party of the first part, and that the decoration was a separate operation to be commenced after his work was done, and usually not by a general contract but by individual days' work.

We can reconstruct from the Commissioners accounts, and not from the contracts or specifications, the details of both these preliminary and final stages.

After this explanation of the process of building, we can turn to the contracts themselves with better understanding.

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GREEK METHODS OF PREPARING, RAISING AND PLACING STONEWORK IN THE EARLY ARCHAIC AGE (VI-V CENTURIES B. C.).
(From Perrot: Hist. Anc., Art. VII.).

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SURETIES FOR CONTRACTOR.—As soon as any work was assigned to a contractor, and before the contract could be signed, he was obliged to furnish a specified number of sureties, in some cases as few as two, in others as many as five, each of whom had to qualify as his bondsman, becoming responsible for the entire amount of the contractor's bid as well as for any penalties he might incur in the course of the work. The contract was then signed, apparently in three copies, the third being deposited with a disinterested party, presumably in a city office.

POSTING OF CONTRACT.—The entire contract, beginning with the original decree authorizing the work, was then inscribed on marble slabs or bronze tablets and set up in public, often not only in the city itself but in neighboring towns. Sometimes, especially if the contractor was paid by a time-lease, there was added a record of the oath taken by the entire people to observe the terms of the contract.

For instance, in the case of the temple of Epidauros the call for bids and announcement of conditions and specifications was made by criers and posters at Hermione, Troezen, Argos, Tegea, Nemaea, Corinth and Thebes. In the ensuing allotment to the lowest bidders the work was divided into about sixty special lots, which were given to 43 contractors.

PAYMENTS.—The next step was the payment to the contractor by the committee in charge on behalf of the State of half the total amount of his bid, less a tenth of the whole, which, as in France to-day, was held to the end as a guarantee.

OBLIGATIONS.—Within ten days after this payment the contractor was obliged to begin work and to keep a sufficient number of approved men constantly at work. He bound himself to follow exactly the specifications and the measurements, drawings or models furnished by the architect. A time limit was always specified and a fine imposed for any delay. The contractor furnished all tools and implements, all material for scaffolds and other machinery, and was exempted for it all from both import and export duties; but with few exceptions the state furnished all the material, such as stone or wood, that was to enter into the construction and decoration. This was done, outside the main contract, by day or job work, with payments to individual quarriers, carpenters, teamsters, etc.; or by small sub-contracts.

In case the work should be interrupted by order of the committee, by war, by accidents, etc., an extension of time was granted equal to the time lost.

In early times the supervising architect and committee, who engaged the workmen directly, had naturally assumed all responsibility, but in contract work a large part passed to the contractor. As the State furnished the materials it remained responsible for their quality and safe delivery on the ground to the contractor. But if in the course of the work any of the material was damaged, the contractor was obliged to replace it within a reasonable time or it would be replaced at his cost.

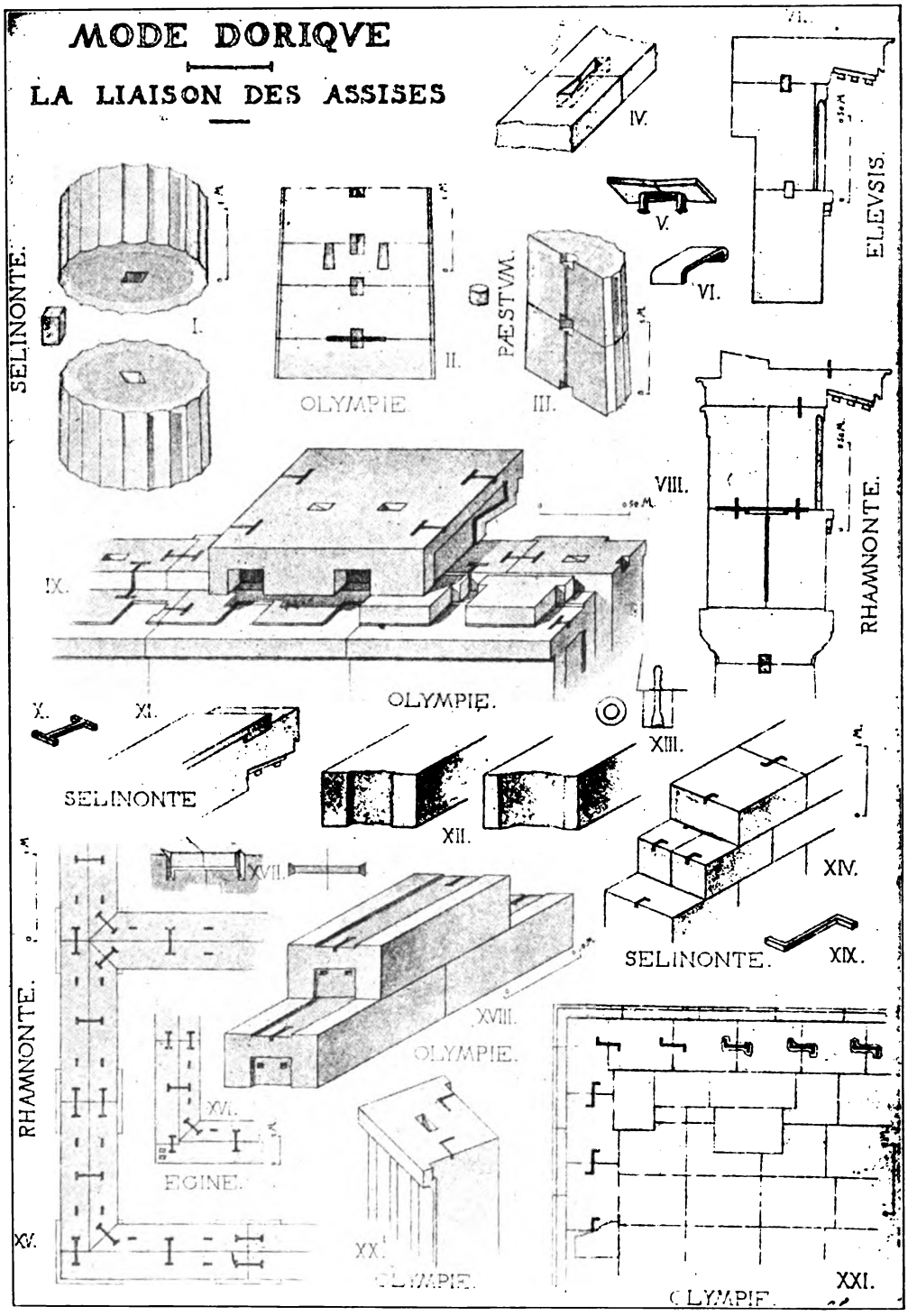
SUPERVISION.—Every stone with its attachments was to be examined and approved by a commissioner or supervising architect before it could be put in place, and the contractor could be forced to remove at his own cost any unapproved material, even if it were not proved to be defective, and be fined into the bargain.

The first payment of a half having been made before the work commenced, a second payment of one quarter, less the one-tenth, was to be made when the work was one-third done, and a last payment of the last quarter when it was two-thirds done, always in anticipation.

ACCEPTANCE.—As soon as the contractor was ready to hand over the building he was to notify the architect and commissioners, and it was their duty to make final examination and deliver their certificate within ten days after being notified. Each section of the work was to be examined and approved separately in presence of the contractor, and it was then passed on as a whole.

In cases these officials delayed beyond the ten days, the building was adjudged passed by default, and the 10 per cent.

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GREEK METHODS OF ATTACHING STONEWORK IN THE EARLY OR ARCHAIC AGE (VI-V CENTURIES B. C.).
(From Perrot: Hist. Anc. Art, VII.)

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guarantee fund thus far held back was paid to the contractor.

There was sometimes a slight variation. In the contract for the paving-slabs to be laid around the temple at Lebadeia, the first payment of one-half less one-tenth was made as soon as the stonework was prepared; the other half less one-tenth as soon as the stones were in place; the remaining one-tenth on acceptance of the job. In this case the method was one strictly of pre-payment.

CHANGES DURING WORK.—As might be expected, the contract provided for changes that might be made in the course of construction. The supervising architect and commissioners are given what would now be regarded as undue license in this particular, for they are allowed to increase (or diminish) dimensions without increasing the cost. In one contract, to be sure, these changes must not in any case exceed one-sixth; in another no limit whatever is set. In the case of absolutely new work added to the contract, the same favoritism is shown, for its valuation is made to rest with the officials alone.

CONTRACTOR'S LIABILITIES.—Until the building was approved the contractor was to remain responsible for everything. Should any injury happen to the building, either in its new or its old parts, or to any neighboring building, he is liable. If the commissioners find any part of the work unsatisfactory they may condemn the contractor to renew it and to pay a fine beside; their sentence being usually regarded as provisional until confirmed by the proper tribunal.

BREACH OF CONTRACT.—Should the contractor break his contract by delays, or by refusing to pay fines, or by disobeying orders, the commissioners may deprive him of the job and again put it up in public to the lowest bidder, the first contractor and his bondsmen remaining responsible for any differences, losses or injuries. It sometimes happened, however, that the construction was finished by day's work and charged to the account of the ex-contractor.

ARBITRATION.—In order to avoid legal complications, it was specified that all disputes between the various contractors, or between contractors and workmen, should be arbitrated by the commissioners; also that in case of any trouble between the commissioners and the contractor, it be judged by the local tribunal, and any contractor carrying his case to the tribunal of another city be fined twice the amount in dispute.

SUPERVISING COMMITTEE.—The duties of the commissioners varied exceedingly between the fifth and fourth centuries, according to the proportion of work that was done by contract, of which they naturally had merely a general supervision. In all cases, however, the policing of the works was entirely in their hands: any malfeasance on the part of either contractors or workmen was punished at their discretion, without appeal, either by fine or expulsion.

FORM OF CONTRACT.—A very complete form of contract is illustrated by that drawn up between the city of Eretria and the engineer-contractor Chaerephanes for the drying up of a marsh. It includes many clauses that would also appear in building contracts. §1 exempts the contractor from import and export duties on materials required in the work. §2 gives him a ten years' lease of the redeemed land on payment to the city of a total rental of 30 talents (c. $37,500) in yearly instalments. §3 sets a time limit of 4 years for the work. §4 exempts the contractor from any duties on the produce of the land in question, provided he sells it in Eretria, but not if he exports it. §5 contains the oath taken by the entire body of citizens to stand by this contract. It also provides for an extension of time in case of war equal to the time lost, and for the same extension in the use of the produce. §6 gives the details of the work to be done, of the indemnities to be paid by the contractor, and his other obligations. §7 provides in case of the contractor's death that his heirs shall continue the work. §8 inflicts loss of civic rights on any citizens interfering with this contract. §9 provides for bondsmen who shall guarantee that the marsh shall remain dry, as well as the payment of the rental of 30 talents. §10 gives the contractor the right of *asulia*, or immunity from attach-

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ment by land or sea, for himself and all his workmen; except in cases of claims against the city. Five bondsmen are mentioned. Then follows the text of the citizens' oath, the anathema against the oath breakers, the instructions as to inscribing and posting this contract in Eretria, Megara and Andros.

CONTRACT FOR THE LONG WALL, ATHENS.—The text of the contract for the building of the famous Long Wall of Athens gives an even greater number of details. The conditions regarding *bondsmen* for the contractors are specified; the contract is put under *oath*; the contractors are required to give an account of their conduct of the work before an assembly of the people. It is specified what part of the work shall be done each year: what shall be the jurisdiction and what the penalties. An architect was elected director of the works by popular vote. He arranges,—subject to the control of a committee, also elected by the people, and consisting of two epistates and an intendant,—the general program of the work, dividing it into lots to be put up separately for bids. A college of auctioneers presides over the adjudications. Still, the contractors, who are here called architects, are allowed considerable freedom and responsibility.

AMATEUR AND PHILANTHROPIC CONTRACTORS.—While the great majority of contracts were undertaken by professional builders and architects, there were cases when they were assumed by men of wealth anxious for popularity and for the public recognition and honors awarded, especially at Athens, whenever such men carried out the work in even better fashion than the contract required, and voluntarily lost money by substituting, as the wealthy family of the Alcmæonidæ did at the temple of Delphi, a more expensive material, or by a more careful finish and decoration. It was probably a way the wily Athenian people, especially, had of playing on the vanity of men aiming at recognition.

Sometimes this was even done by the Commissioners of Public Works, who contributed out of their private purse to complete some work they were supervising. One famous case was that of the great Demosthenes, whose expenditure of three talents (c. $3,750) for strengthening the walls of Athens against Philip led to the immortal oratorical tilt between him and Aeschines (*De Corona*, περὶ τοῦ στεφάνου) about the gold crown with which the grateful Athenians had rewarded his generosity.

SIZE OF CONTRACTS.—The general conclusion must be that practical contractors worked in most cases on a very small scale. Callicrates, it is true, secured the bid for the entire Piræus wall, Chærephanes for the draining of the Eretrian marsh, and Philo for the Arsenal; but these were exceptions. The work was usually fractioned up, and even then two or three contractors were sometimes associated on each of these small jobs. Of course in such cases the contractor could not be the architect—as Philo was. Contracts were commonly made for sums as small as 200 or 300 drachmas, ($40 to $60), though many amounted to between 1,000 and 7,000 drachmas ($200 to $1,400). In such cases the drawings and the general supervision were both probably among the attributions of the state, city or sanctuary. As mentioned above, the construction of the temple of Epidauros (380-375 B. C.) was fractioned into 60 lots given to 43 contractors.

LIBERTY OF THE ARCHITECT.—It is not easy to say how much liberty the Greek architect enjoyed in carrying out his ideas and plans, but it is quite safe to say that his liberty was greater than that of Roman or mediæval architects. In matters purely æsthetic and decorative the freedom was practically complete. Ecclesiastical control of art was not as omnipresent as in the Middle Ages, for art was not as dogmatic or instructive, nor was there the Roman bondage of corporate conditions. Greek architects, being more highly educated, required less "coaching."

It is true that an instance of successful ecclesiastical opposition seems to appear at the Athenian Propylæa. The original plan of Mnesicles was for a much larger and more symmetrical building: but it

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was changed in two important particulars. He was forced to make the S. W. wing smaller than the corresponding wing on the N. W. because of the objections of the priests of the Wingless Victory and the Brauronian Artemis, with whose precincts it would have interfered. Neither was he allowed to add two large halls on the N. E. and S. E. sides of the portal, for one of which there still remains preparatory work in the shape of a cornice, holes for roof-beams and an anta, now useless appendages on the exterior. It is supposed that these restrictions were imposed by political enemies.

The purely æsthetic freedom is evident on all hands. The architects of Athens under Pericles were allowed to take the revolutionary step of introducing from Asia Minor the Ionic style, which had never before been used in large public buildings in Greece. Later, when Hermogenes was entrusted with the erection of a temple to Dionysos at Teos in Asia Minor he had already collected on the site all the material required, already roughed out for a building in the Doric style, but he changed his mind and decided to use the Ionic order. He transformed everything to suit the change. Of course this was possible only in consequence of the Greek method of finishing off *in situ*, and of the latitude allowed the architect.

Designing Architects Versus Maitres de l'Oeuvre.—It is clear that the more prominent architects must often have planned buildings without personally supervising their construction. In some cases this supervision was a perfunctory piece of work that could be confided to a routine architect. In other cases, the latitude in the matter of detail and ornament left to be decided as the work progressed gave great importance to the position of superintending architect.

This was the case with the famous temple at Eleusis, begun in the time of Pericles. The entire building is attributed to Ictinus by Vitruvius and Strabo, but Plutarch in his Life of Pericles says that Corœbus was its head architect until his death, constructing it as far up as the architrave; his successor, Metagenes, continued the work as far as the roof; which was added and the temple then completed in all its details and decoration by Xenocles. There is really no contradiction; these three men were successively superintending architects, presumably carrying out the designs of Ictinus.

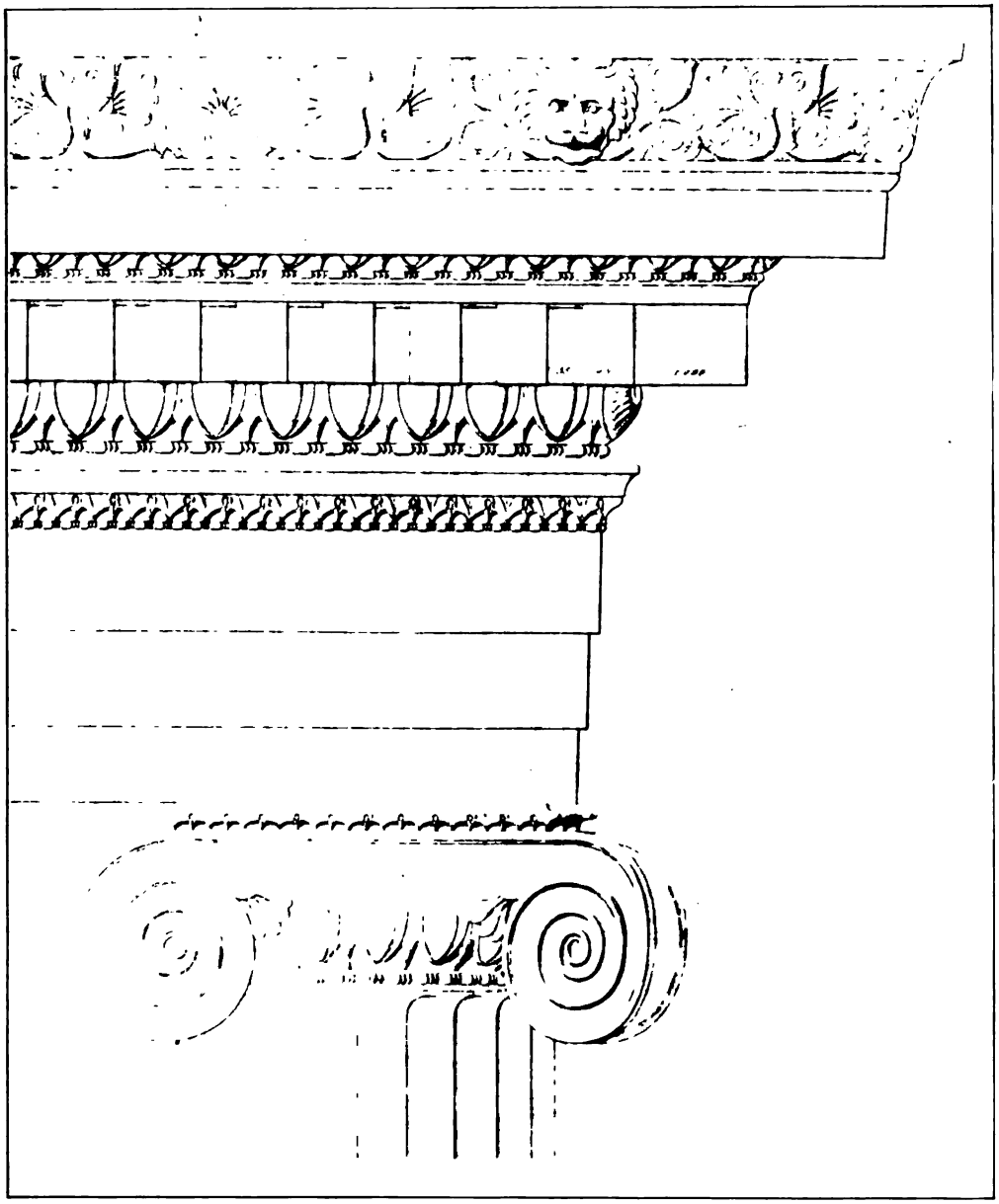
Associated Architects.—In the Parthenon itself the names of Callicrates and Carpion were associated with that of Ictinus as its architects, but to Ictinus alone the glory of the design is given. Still the other men are not unknown. Callicrates was the contractor-architect of the city walls, and we may infer that he was the superintending architect in the construction of the Parthenon. Carpion was joint-author with Ictinus of the customary monograph describing the building and the ideas and norms it embodied.

These are a few of the examples which show that architects as well as contractors were often associated in the erection of a single structure. They formed a firm, perhaps, for the occasion only. This association is found even for the erection of such small buildings as the charming treasure-houses of the different Greek cities lining the sacred ways of the famous national sanctuaries such as Delphi and Olympia. Sometimes it was father and sons, as in the case of Pyrrhos and his sons Lakrates and Hermon, who erected the Treasury of the Epidamnians at Olympia. Sometimes there was, apparently, no family connection, as with Pothæus, Antiphilos and Megacles, who built the treasury of the Syracusans, also at Olympia.

Where the association was for the erection of a large temple, it is sometimes as easy to find the reason, as in the case of Ictinus. For instance, the contemporary completion or rebuilding, after the close of the Median Wars, of the temple at Ephesus by Pæonius and Demetrius, and the building of the Didymæon of Miletus by the same Pæonius and Daphnis, is explicable on the supposition that Pæonius gave the designs for both, and that his associates in each case were superintending local architects. In fact, as Demetrius was a priest of the

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temple of Ephesus, he may have been less a professional architect than a dilettante official sufficiently versed for superintending purposes. Daphnis, on his side, was a native of Miletus.



PRIENE, TEMPLE OF ATHENA; ORDER, UNIQUE DESIGN WITHOUT FRIEZE BY PYTHIUS (TIME ALEXANDER THE GREAT).

This association of architects in carrying out a single piece of work seems to have been commonest in the early period, before the prevalence of contract work, when there was no third person or agency to stand between artist and employer. One of the earliest groups of

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names known is that of the architects who planned and commenced the colossal temple of Zeus at Athens, in the time of the Pisistratidæ, long before Pericles. Their names were Antistates, Callæschrus, Antimachides and Porinus.

HONORS TO ARCHITECTS.—Notwithstanding the honors rendered to architects, it seems that they were not allowed to inscribe their names on the monuments they built. They were thanked by public decrees; statues were even erected to them, as in the case of the clever architect and sculptor of the sixth century, Byzes of Naxos, who invented marble tiles. There may have been some exceptions in the fourth century B. C., famous for breaking traditions; but even then there are no absolutely certain signatures. An interesting case is the immense civil structure at Olympia, which became the residence of the Roman governor of Greece, and was called the Leonidæum. It is now seen, by the discovery of his dedicatory inscription, to have been built by the architect Leonidas of Naxos, in about 350 B. C., and to have been called after him, presumably because he not only built it but gave it. This architect must have been famous as well as wealthy, for Vitruvius mentions a treatise by him on *proportions,* and the inhabitants of Psophis erected a statue in his honor near the Leonidæum itself.

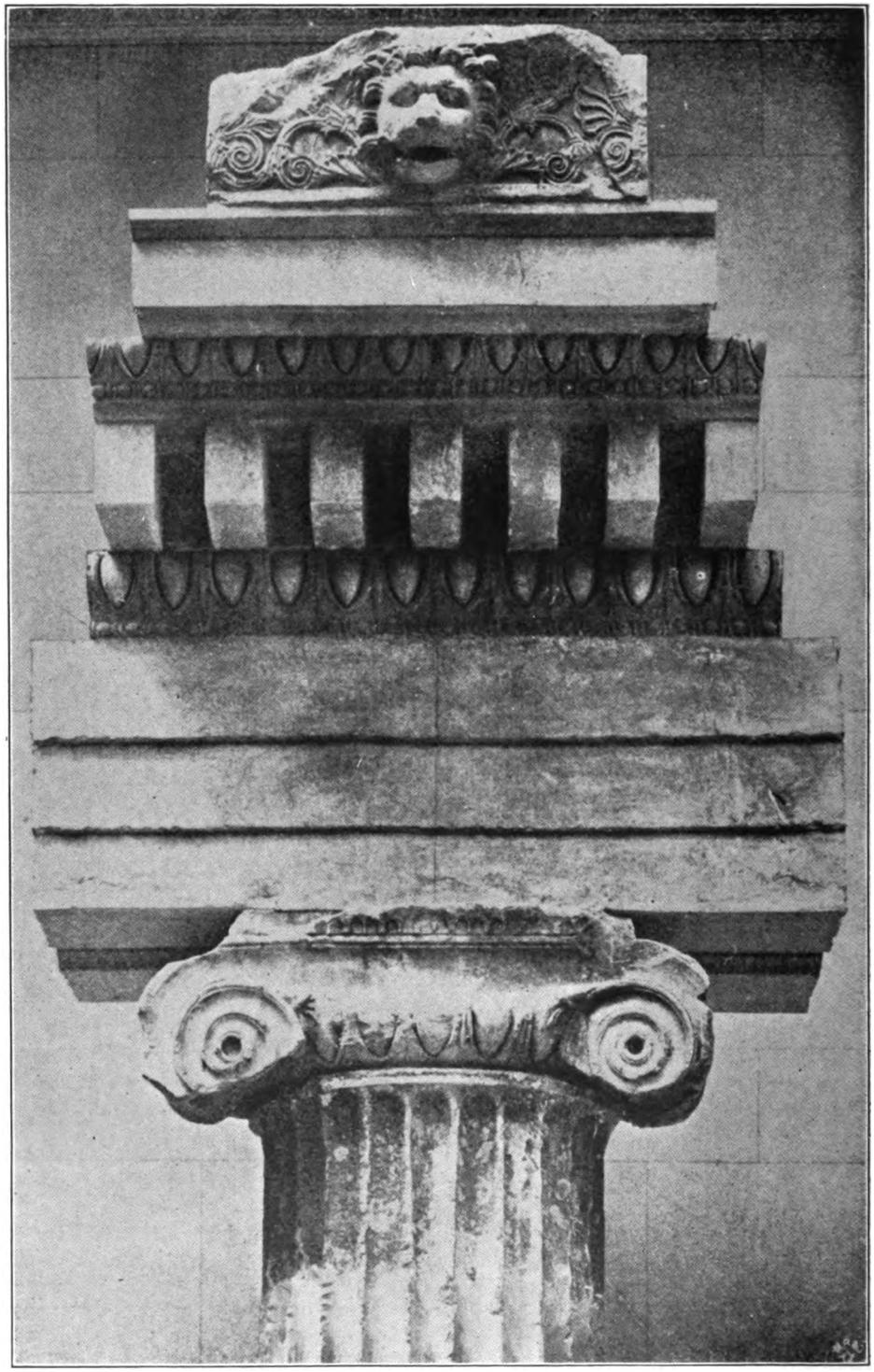
This was by no means the only public monument named after its architect. At Olympia itself the architect Agnaptos gave his name to a colonnade. At Athens a portico was called after Hippodamus, and a basilica after Metiochus. The Aristandrian colonnade at Megalopolis and the theatre of Epigenes at Thasos seem to be other instances.

ARCHITECTS' SIGNATURES.—In so far as architects' signatures, strictly speaking, are concerned, the Frenchman Homolle, when he published in 1892 the dedicatory inscription (dated c. 140 B. C.) of a temple at Delos with the architect's name, Apollodorus of Athens, stated that only *two* Greek signatures of architects were known, and that even one of these was of the Roman period (Euphemius), the other being that of Cleon, son of Pericles. Homolle regards the famous inscription of Sostratos on the Lighthouse at Alexandria, which is reported by ancient writers, to be a dedication, not a signature. The difference amounts to nothing for our purpose, as both forms are authoritative statements of the architect's authorship.

SOURCES FOR ATTRIBUTION OF BUILDINGS TO ARCHITECTS.—In consequence of this lack of architects' signatures, such as we find so frequently in the Middle Ages, there may be some scepticism as to the certainty of the authorship of Greek buildings, which I have not questioned, because it has often come to us through authors who lived centuries later. But, on the other hand, there were various ways by which writers like Varro, Strabo, Pliny, Vitruvius or Pausanias could obtain reliable data. First, the numerous *monographs* by Greek architects, which were freely circulated; second, the *contracts* for all public buildings inscribed on marble, built into a public monument and including the architect's name; third, the annual *accounts* of the commissioners overseeing the erection or restoration of any public monument, in the text of which the amounts paid to the architects were included; fourth, the public *decrees* or other *inscriptions,* honoring architects for especially meritorious work; fifth, *memorials* dedicated to architects, in the form of statues, buildings, etc.; sixth, passages in *contemporary writers.*

Of all these sources the contracts and accounts gave the most abundant material. In the case of the great sanctuaries at Delos, Delphi, Eleusis, the names of the architects in charge are given every year. In this way the authorship of even the least important work was public knowledge. In no other country and at no other period was this information so exact. Antiquarians of the time of Pausanias could obtain from the inscriptions three or four centuries old as exact information as could contemporaries. Consequently, it is only in dealing with Greek legends concerning such prehistoric artists as Daedalus that scepticism should be allowed many privileges.

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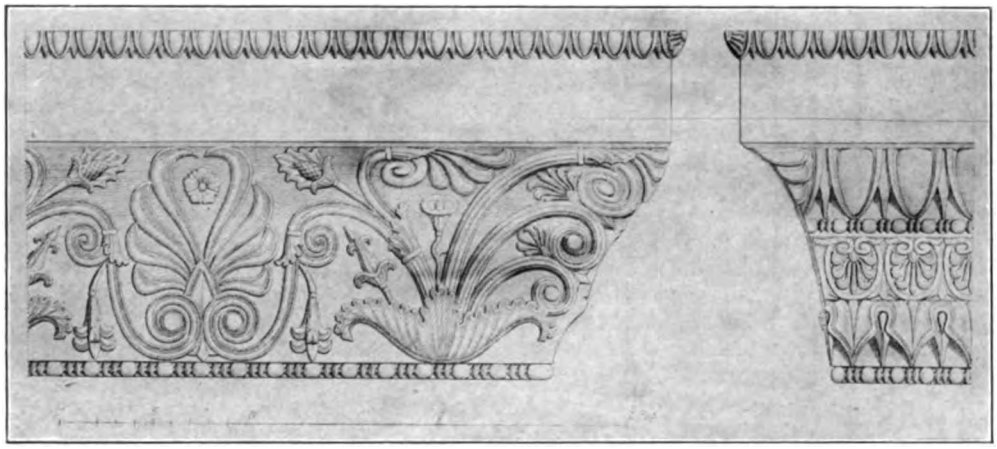


PRIENE, ORDER WITHOUT FRIEZE.
(From plaster model in Pergamon-Museum, Berlin.)

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ARCHITECTS OF DELPHI.—An interesting confirmation of such documentary information as is given by these contracts and accounts has come from the recent French excavations at Delphi. The fourth century accounts of the main temple mentioned a number of small contractors to whom separate parts of the stonework were let out: their names are given, as well as the amounts paid them and the parts of the temple on which they worked. Now, the excavators found in the ruins of the temple some stones on which were inscribed the names of three of these contractors, at the exact spot where the accounts stated that these men worked. The history of this temple of Apollo at Delphi is typical. The early temple was burned in 548-7 B. C. The Council of Amphyctions contributed 300 talents, about $375,000, for the reconstruction, of which the people of Delphi gave one-quarter. Special emissaries solicited contributions in every part of the Hellenic world. The Greeks in Egypt even contributed, and King Amasis gave a thousand talents' (= over $1,000,000!) worth of alum. The architect was Spintharus of Corinth, and the contract was assumed not for profit, but as a benefaction by the noble family of the Alcmæonidæ, banished from Athens by the sons of Pisistratus. They did more than the contract called for, substituting Parian marble for common stone.

This national shrine was thrown down early in the fourth century. At a Peace Congress of all Greeks held at Sparta in 371 the different states were invited to contribute to its reconstruction. The famous "tyrant" Dionysius of Syracuse wrote a letter to the Athenians about the rebuilding. An international committee was put in charge, with the title of "temple-makers" (*naopoioi*). It was selected from members of the Amphictyonic league, to whose treasury all contributions were made. The funds were passed to the commissioners by the Council or by the administration of the City of the Delphians. The commissioners superintended the quarrying, transporting, hewing and placing of the stones, and acted as paymasters. They selected and dealt with the architects, contractors and workmen. The stone was brought from Corinth and Sicyon by sea to Cirrhæ, slung by cranes onto the quay, and then carted to the site. The architect whose designs were followed proves to have been Xenodorus, who appears for years on the accounts as architect in charge.



PRIENE, FRAGMENTS OF CAPITALS OF ANTAE.
(Now in British Museum.)

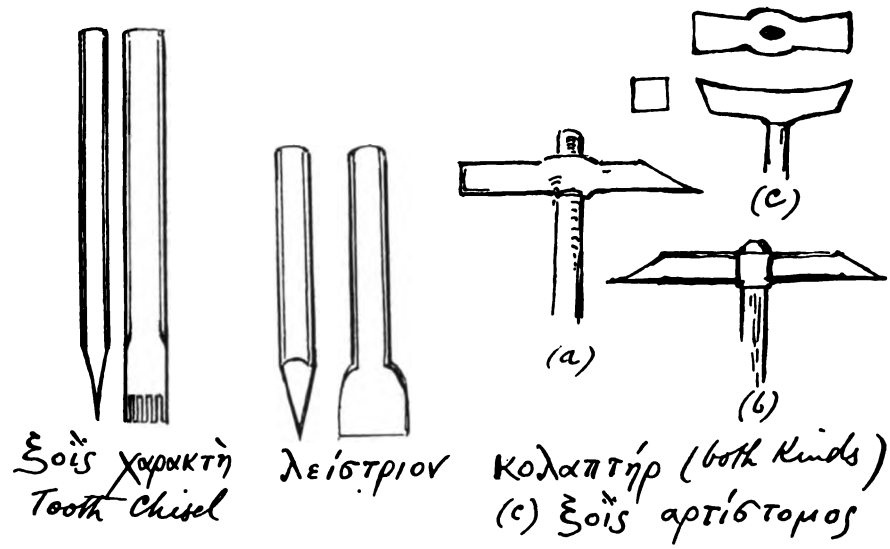
The accounts of the commissioners of this reconstruction for a period of over twenty years, from 353 to 328, have been found. But the work languished. A hymn written c. 338 says that "the god bids the Amphictyons to complete the work with all speed," but it was still un-

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finished long after. An inscription of c. 230 B. C. refers to the care with which "Agatho, the architect of the temple, and after him his son Agasicrates, and now Agathocles, has superintended the works commanded by the god and the Amphictyons." It is this temple, though injured by barbarians in 83-84 B. C. and repaired by Nero, the ruins of which have been excavated by the French.

WORKMEN.—What kind of workmen did the architects and contractors have to their hand, how were they engaged and what were they paid?

The grade and social standing of the workmen varied according to period and city. As happened later in the Roman commonwealth, free labor, at first supreme, suffered under increasing disadvantages. Honored in prehistoric times, when Ulysses prided himself on manufacturing his own bedstead, it was frowned upon in historic times in all the states with aristocratic constitutions, like Sparta, where workmen were not admitted to citizenship. In this respect the philosophic leaders, Plato and Aristotle, were un-Athenian and un-democratic. Aristotle says: "Artisans are almost slaves: no well-ordered city will admit them to citizenship, or if it does will accord them the full civil rights that should belong only to those who do not need to work for a living." Plato has already been quoted as excluding from citizenship those who worked with their hands. The qualified citizenship that Aristotle refers to was allowed artisans at Thebes, where, though they possessed the other rights of citizenship, they were eligible to public office only ten years after retiring from work. A similar tendency prevailed at Athens until the fourth century, when decreasing wealth forced more free citizens into the ranks of labor. Athens and Thebes represented, therefore, a middle position. At the opposite end from Sparta stood such cities as Phocis and Locris, which possessed but a small slave population and where the arts and crafts were freely exercised by the citizens themselves. The better-conditioned citizen workmen owned workshops and employed journeymen or associates and apprentices as well as slaves; they also commonly taught their own sons. The proportion of free to slave labor cannot, of course, be determined. We can only infer from cases where the building accounts mention the names of the workmen. For example, it would seem that all the men who worked on the Erechtheion were citizens or *metics;* not a single slave is mentioned.



TOOLS OF GREEK STONECUTTERS USED AND MENTIONED IN LEBADEIA SPECIFICATIONS FOR PAVEMENT.

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In free labor we must reckon not merely on the class of citizens of the Greek states, but on the very numerous class of resident strangers, who are called *metics*. They enjoyed no political rights, and only limited civil rights: still they had a certain share in both the duties and advantages of the state in which they resided. Athens especially welcomed and favored them, and under certain conditions gave them citizenship, especially because they consisted so largely of skilled artisans. The majority of contractors and architects belonged to this class, and often also the majority of workmen, owing to the common practice of competing for work all over the country, and of carrying about skilled workmen from place to place. It seems probable that for high-class work the majority belonged to these two classes of free labor—citizen and foreign.

SLAVE-LABOR.—Passing over the class of *freedmen*, whose services were not usually at the disposal of the public, but of their special patrons, we come to the *slaves*. They formed the mass of unskilled labor and a fair proportion of skilled labor. The state owned thousands, and its quarries, mines and forests were worked in this fashion. The large contractors had regular squads of slaves, which they transferred from place to place. In many cities practically all manual labor was in their hands, as in Sparta. Slaves sometimes rose to being superintendents, shopkeepers and practical heads of business enterprises with dummy employers. Such well-organized establishments were often important assets that passed as a whole from one owner to another.

In our particular branch of work it is important to note that slaves could be not only owned but hired by the day or job, the proceeds going to the owner. In periods of business depression or slack work, the owner would send out his slaves to seek employment.

The Greeks had no employment bureaus or agencies, and no unions to facilitate work. But there seem to have been in each city regular stations where free journeymen out of work, whether citizens or strangers, and slaves sent out by their masters, stationed themselves in the early morning, waiting for employers. In Athens this station was on the hillock of Colonos Agoraios, near the market place.

WAGES.—There being no labor unions there were no strikes for wages or hours. The state never undertook to regulate conditions in either case. Everything was left to the individual, and wages varied with times and with the status of the workmen. Wages seem to have risen steadily after the fifth century B. C. for free labor, largely on account of the higher cost of living.

There were two kinds of wages: by day's work and by the job

The usual day's wage in the fifth century was one drachma, about 20 cents, of which about a half was reckoned as equivalent to the cost of living. This price seems to have prevailed indiscriminately for skilled as well as unskilled, for free as well as hired slave labor. It is the rate at the Erechtheion, the Parthenon and the Propylæa. Only when prices rose was any material distinction made, and slave labor, both hired and owned, became much less expensive in comparison, largely, it is supposed, because the free laborer had a family to support, whereas the slave was usually single. Before the close of the fourth century the prevailing day's wage had risen 50 per cent., to one and a half drachma.

In many cities the interests of the workmen were looked after by public officials, called *agoranomoi*, or "judges of the market-place," and such officials could decide disputes between masters and men up to 50 drachmas; anything above went to the tribunals.

PIECE-WORK.—The cost of work by the job, as shown in some accounts and inventories, bears less upon the day's wages than upon the amount of work accomplished in a given time.

For example, take the delicate work of channeling eleven columns at the Erechtheion in Athens; the work was divided among 34 stone-cutters, and was paid $175. Five carpenters received $19 for making 388 joists 0.54 m. long and 0.20 m. wide.

The minute parceling out of the work, which went to the extent of setting more

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than a half-dozen men simultaneously at work on the channeling of each column. goes far to explain the wonderful rapidity, commented upon even by the Greeks themselves, with which the great buildings on the Athenian Acropolis were erected.

That this rapidity was not unique appears in several cases where the accounts prove the exact time spent in actual construction. For example, it took only four years, eight months and four days to build the temple of Epidauros, whose architect was Theodotos, who for his supervision received only one drachma per diem! The time limit at Delos was four years and a half; at Eretreica, four years.

ARCHITECTS THE CREATORS OF STYLES.—The impression this inquiry into the personality and work of Greek architects has made upon my own mind is the conviction that when the yet unwritten adequate history of Greek architecture is written, the author will prove that those critics who have harped on the uniformity of the Greek orders and on the laws that prevented freedom of architectural expression, have taken a crude view. It seems hardly possible for an intelligent mind to follow the course of temple architecture alone from the wood and terra-cotta type of the early archaic age through the many phased types of peripteral stone and marble structures, without perceiving that at all important stages there must have been leaders to establish the new types.

All innovations, it is true, were not equally successful. The *eustyle* proportions and pseudo-dipteral plan of Hermogenes entered into the life of the style; but Pythius' suppression of the frieze at Priene found no imitators.

It would not be difficult to give epoch-making examples. We can credit Ictinus and his friends with the revolutionary introduction of the Ionic style and its combination with Doric, and Scopas with popularizing the addition of Corinthian to this duet. Pæonius led the fashion in sculpturing the lower drums of columns with figures in relief, though he did not invent it; and Pythius invented at Halicarnassus a historic model of a colossal mausoleum.

A large part of the history of Greek architecture hinges, therefore, on the individuality of the architects who created it. Their ideas were no more run in a mould than were those of the great Gothic architects. Neither group were as stereotyped as men of the Renaissance.

Fortunately they had good material to work with, and could deal with free and individual labor instead of hide-bound and machine-made unions. The Greek love of individual liberty fought not only for artistic freedom but against monopolies among contractors as well as among laborers. This disposes of one current fallacy about Greek labor guilds.

A second fallacy to be disposed of is that which casts doubt on the extent to which the Greek architect was the designer and decorator of his building. Certainly Ictinus and not Pheidias should be credited with the proportions, refinements and decorative scheme of the Parthenon. The keynote of the Greek architect is this very thing—his mastery of the other arts in relation to architecture and his supremacy in planning every part of the structure from beginning to end. His entire education has been for this purpose. He was even more a *maître de l' œuvre* than the Gothic architect, and just as much in sympathy with every current of contemporary life.

Is there not a great deal in this that bears on current tendencies? What made Greek architecture so great? Was it not the breadth of education, the literary and historic as well as scientific training of these men? Was it not the successful application of this broad culture through an imaginative realism to the practical problems of the day? All these things must be fused together in one personality.

A large group of pragmatists among our architects are active in inviting their associates to despise such knowledge and to concentrate on practical training only. If there is any force in the insistent voices of the Greek masters, the profession will cast out or reform the false prophets and will foster the broad scientific and aesthetic education favored by the ancients.

A. L. Frothingham.

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The Châteaux of Rochecotte and Réaux

As we motored along the dusty Touraine road towards St. Patrice and the Château of Rochecotte, my companion and I could find no other topic than that of Dutch art. The French guide-book which we had brought with us from Paris made special mention of the Rochecotte collection of pictures by the best Dutch artists of the seventeenth century—masterpieces which had once belonged to the Princess of Courland—and it was but natural, therefore, that we should converse in a speculative manner about Metsu, Gerard Dow, Albert Cuyp, Ruysdael and Adrian van Ostade.

Suddenly, whilst we were thus tasting our pleasures beforehand, the car swept round a bend in the road, bringing us within view of the first houses of St. Patrice and directly opposite the ornamental wrought-iron gates of the Château of Rochecotte. A long, straight and rather neglected avenue led us up the wooded hillside, under the lee of which the village stands; and on almost reaching the top we caught sight, between the trees on our right, of the château, a plain and yet distinctly elegant seventeenth-century building, placed at a point where the eye can take in an admirable view of the valley of the Loire, with Ussé and other châteaux plainly visible on a clear day. Approaching a columned and escutcheoned entrance, shaded by an ancient fir tree, I had a premonition of disappointment on seeing the closed shutters of the white sunlit façade. Were we going to find that the Dutch treasures were inexorably guarded against the public eye? Certainly it looked very much like it, since we rang the bell again and again without receiving an answer. At last, when it became evident that the mansion was unoccupied, I set off on a journey of exploration among some adjoining outbuildings, and there, received by the fierce barking of a watch-dog, I found the caretaker. Yes; the Castellane family was away, said this respectful aged man; but if we liked he would willingly show us over the château, though he feared it contained little to interest us. That last observation of his made us pity him, for it was clear he could not be a lover of Dutch art.

After the opening of many doors and shutters he feebly led the way from room to room. This—a room occupying the entire ground floor of the right wing of the château—was the drawing-room, the portraits on the walls being those of members of the Castellane family; here, to the left of the vestibule, was the library, filling two exceedingly inviting apartments; and the room adjoining was the *salle-à-manger*, with more family portraits on the walls. On the way to the first floor he drew our attention to the wrought-iron balustrade of the staircase, remarking, "On ne fait pas des choses si bien aujourd'hui; la main-d'oeuvre est trop chère" (things are not made so well nowadays; labor is too dear), and pointing out that the portraits on the landing were those of Mme. de Sévigné and her daughter, the former of whom, in 1669, had married François de Castellane, Comte de Grignan. He next took us into a succession of bedrooms opening on to an old-fashioned corridor, hung with more portraits of Castellanes, and then, partly retracing our steps and mounting another staircase, into a little gallery to view the interior of the chapel. For some unexplained reason he showed a particular fondness for this chapel, and he enjoined us to see its exterior, which he pronounced, in the reverential tone of voice of an old retainer, to be "very beautiful and worthy of a great family." Not wishing to hurt his feelings by a refusal, we complied, though I fancied I heard my companion, as we followed him outside, heave a little sigh on drawing away from her favorite painters of *genre*. There was some compensation, however, in finding that our *cicerone* was very well informed about this

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THE CHAPEL OF THE CHATEAU OF ROCHECOTTE—BUILT IN MEMORY OF TALLEYRAND

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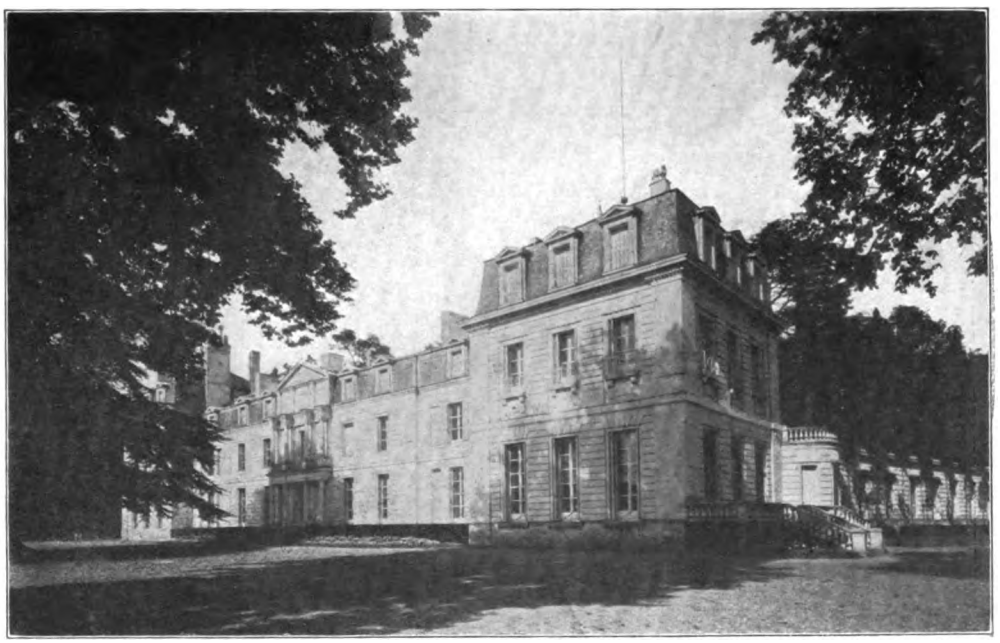
chapel with profusely decorated façade, which, by-the-by, is badly in need of restoration. It had been built, he said, by the Duchesse de Dino in memory of her uncle, Monseigneur le Prince de Talleyrand, who had frequently come over from the Château de Valençay to spend the summer with her at Rochecotte, and its site was that of the very bedroom he had occupied. Talleyrand having made her his heiress, she had come into possession of his papers, including those curious memoirs which he had heard had aroused so much curiosity and discussion—memoirs which, unfortunately, she had not seen published, since she died on September 29, 1862, six years before the date fixed for their publication. So it was well she had had the satisfaction of raising this monument to his name. When it was evident that he had finished his story, I ventured to suggest that we should return to the house to continue our visit. "That was as monsieur and madame pleased," he replied; but there only remained the second floor, and that, he felt sure, would hardly interest them.

"But we have not yet seen the pictures," I exclaimed, a growing suspicion coming over me.

"What pictures, monsieur, s'il vous plaît?"

"Why, the Dutch pictures, of course; those of the famous Courland collection."

"Ah! monsieur, now I understand," sadly replied the old servant. "Alas! monsieur, they were taken away a long time ago. And as to what has become of them I am not quite certain; but I believe they were divided among members of the family—and sold."



THE CHATEAU OF ROCHECOTTE—VIEW FROM THE TERRACE.

The caretaker had gone to close the château. Opposite the chapel and under a shady *pergola,* overgrown with Virginia creeper, we walked and mused, my companion declaring that this was the first real disappointment we had experienced since coming to Touraine. Whilst fully agreeing, I did my best to persuade her that this was one of the unavoidable *contretemps* of travel. The casket, it was true, had been found empty. But did it not possess a beauty of its own? Moreover, Rochecotte had

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a history. Among its associations, for instance, was as romantic a story as had ever been penned by novelist. And thus it happened that, seated within the cool shade of the bower, I related the life of the Chouan, Fortune Guyon, Count of Rochecotte.

"Fortuné Guyon came of a family which had owned the Château of Rochecotte since the beginning of the eighteen century. In 1700 its owner was Marie Dublineau, the wife of Rene Guyon, who was a Treasurer of France, attached to the financial department of Tours; in 1763 it was in the possession of Louis François Marie Guyon; and about the time to which we are particularly referring it had passed by inheritance into the hands of our hero's father, who, by virtue of letters patent signed at Versailles in January, 1767, was Marquis of Rochecotte. The Marquis had been a brilliant officer in the Orleans cavalry regiment, and at the time of his son's birth, in 1769, had retired to his château on an income of close upon $10,000.

"At an early age, Fortuné, whose education during boyhood was entrusted to his father's chaplain, showed himself to be an apt scholar, and at the same time an adept in all out-door exercises, especially those of hunting and riding, which he was allowed to practice to his heart's content in the extensive grounds that still surround the château. He likewise had a predilection for arms, and already, when a mere boy, had decided —greatly influenced, naturally, by the marquis—to follow his father's old profession. At the conclusion of his studies in Paris, the Duc du Châtelet, who had come to take a great interest in his welfare, suggested that he should join the King's infantry regiment, of which he was colonel. Fortuné Guyon—then only seventeen years of age—immediately accepted the offer, and without losing time



CHATEAU OF ROCHECOTTE—PORTION OF ONE OF THE BEDROOMS.

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by first of all going home, posted straight to Nancy, where his regiment was in garrison. Some two years elapsed before he again saw his father and sister, and then only for a few weeks. The signs that France was on the eve of Revolution were becoming more and more frequent, making it imperative that every soldier should be at his post. So the young soldier dragged himself away from Rochecotte. The storm broke soon after his departure. The meeting of the National Assembly, the



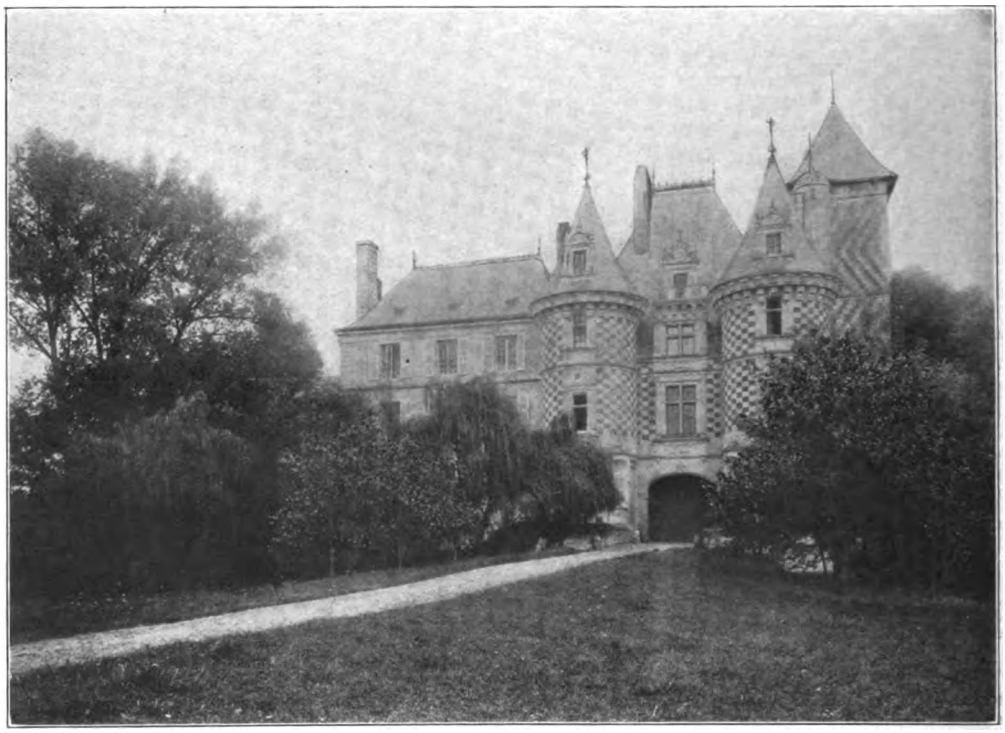
CHATEAU OF ROCHECOTTE—THE LIBRARY.

fall of the Bastille, the women's march to Versailles, and the Feast of Pikes followed in rapid succession. Then, in August and September, 1790, came disaffection in the army, the mutiny of certain regiments, and the Nancy massacre, the news of which, in addition to other far-reaching consequences, killed the Marquis of Rochecotte.

"Shortly before hearing of his father's death, Fortuné's regiment had been disbanded and a large number of his fellow-officers had already fled the country. He himself decided to follow their example, and in March, 1791, did so, in company with a young nobleman of Touraine, though not until he had once more returned to the Château of Rochecotte to visit his father's grave and make final arrangements for his sister's safety. Proceeding to Oberkirch, in Germany, in the States of Cardinal Prince Louis de Rohan, of the diamond necklace fame, he and other royalists formed a company of cavalry which, under the orders of the Prince de Condé, fought with great bravery during the whole of the war against the new masters of France. It soon, however, became evident that, if the new *régime* was to be overthrown, it could only be done by continuing hostilities in the very heart of the country itself; so Guyon determined to return home and throw in his lot with the royalist insurgents of the Vendée, or with the Chouans of Western France. Accordingly, in May, 1795, he set off in disguise, accompanied by Comte Theodore de Bourmont, Prince de Condé's

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aide-de-camp. Whilst Comte de Bourmont went into Brittany, he himself made for Tours. Passing along the banks of the Loire, he could not resist the temptation of visiting the ancestral home. But as he approached the château he almost failed to recognize it, so many changes had it undergone during his four years' absence. Seeing a peasant standing near, he asked him what had happened. 'The old Marquis of Rochecotte is dead,' replied the countryman,



MAIN ENTRANCE TO THE CHATEAU OF REAUX.

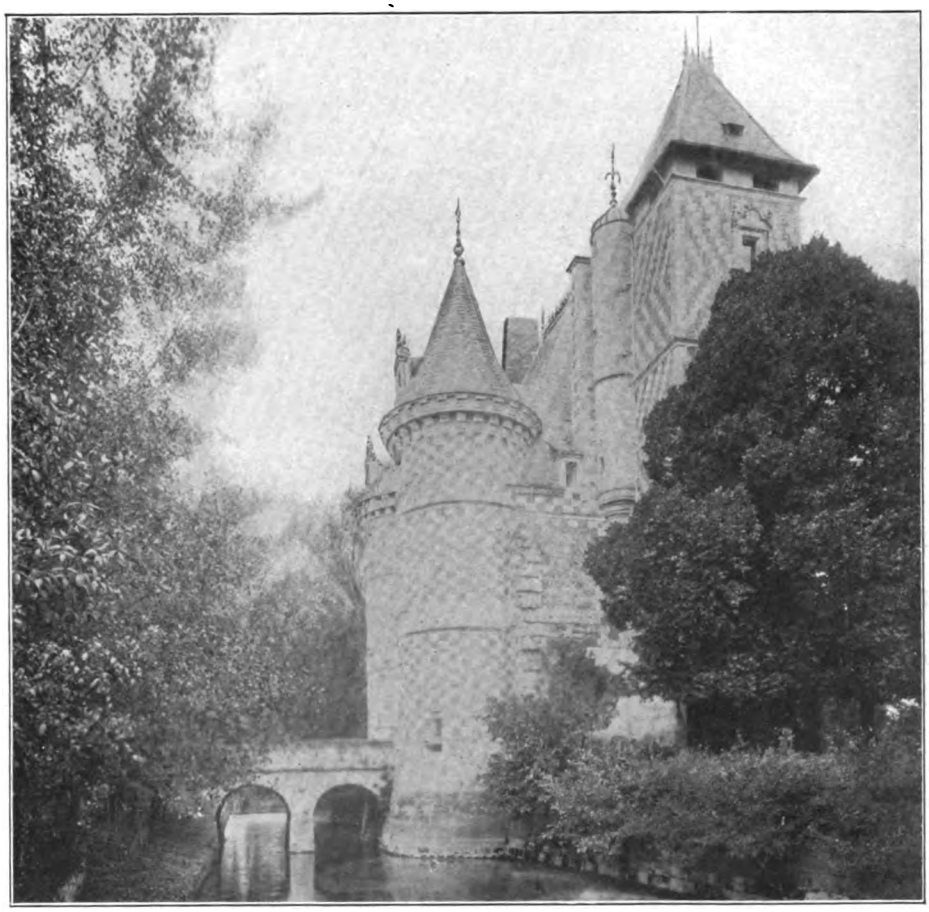
'and his son has emigrated. Everything has been sold, and the new owner has pulled down half of the château to pay for the remainder. But I can tell you he's not at all easy-minded in his new house, for he has a mortal dread of royalists. In fact, monsieur, he's no confidence in the treaty they've just signed. And there, in my opinion, he's not far wrong, for it's said they'll soon take up arms again.' Encouraged by the prospect of renewing hostilities against those who had robbed him of his property, Fortuné Guyon hastened to Poitiers, where one of his uncles, an ardent royalist named M. d'Ormans, lived; and from that time dates the extraordinary activity which he showed throughout his life as an insurgent leader in the ancient provinces of the Maine and Touraine.

"On the occasion of one of the numerous little engagements which he and his men had at this time with the soldiers of old General Chalbos, who was in command of the Republican forces at Tours, there occurred one of the many romances of which his life was composed. Wounded near Vallon, his followers carried him to the Château de Rouillon, not far from Mans, where they knew he would receive every care at the hands of its occupants, Mme. de Rouillon and her friend the Viscountess de D——. The latter, indeed, was one of the most devoted of nurses to the wounded Chouan,

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who showed his gratitude by 'covering with kisses the pretty hands which tended him.'

"Shortly after the 18 of Fructidor, Year V, a disagreement which arose between the Count of Rochecotte and another royalist leader named De Puisaye led to a special journey by the former to Blankenburg, where he obtained from Louis XVIII more extensive authority over the royalist forces than he had hitherto had—probably his rival's post as commander-in-chief of the insurgents of the West of France. But in order to replace De Puisaye at all effectually something more was needed—the financial assistance of England; and to secure that it was necessary to do some signal service to that country. So he set to work to organize the escape from prison of Commodore Sidney Smith, who, on April 19, 1796, had been captured at Havre, in company with a Breton nobleman, Jacques Jean Marie François de Tromelin, and imprisoned in the Temple. The undertaking was one necessitating the greatest coolness and daring, but, aided by a number of other royalists—



THE CHATEAU OF REAUX—VIEW OF HOUSE AND MOAT.

Hyde de Neuville, Phelippeaux, Carlos Sourdat, a dancer named Boisgirard, Mme. de Tromelin, and others, all of whom daily risked their lives—it met with entire success.

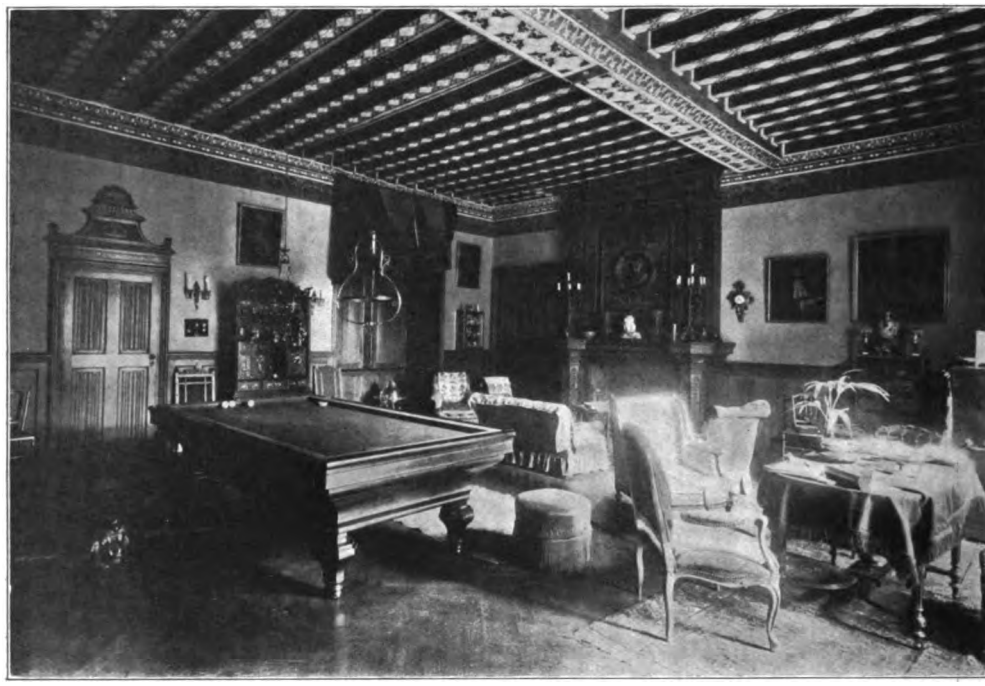
"After so brilliant a service as this, Fortuné Guyon might well expect to receive substantial recognition from the Court of St. James, and he would, in all probability, have attained his object

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through Sir Sidney Smith's influence had the fates but ordained it. But he did not receive even the gift of $2,500 which the gallant Commodore (who forgot not a single one of his rescuers) sent him. On June 29, 1798, he was betrayed to the police by a Vendée officer, Richard Duplessis, whom he had formerly made a Knight of St. Louis.

"Seated within the shadow of his château, which he was never to see again, we can easily call up every detail of the tragic struggle which took place when he was arrested on the Pont Royale in Paris. The first officer to seize him received a fatal poniard-thrust; the second a less dangerous wound; the third was killed on the spot. Running in the direction of the Rue de Bac, followed by a number of citizens, Guyon made a vain attempt to escape. 'I am an *émigré*!—not a thief!' he shouted again and again. But the gathering crowd, as he made another dash for life, would not let him go; they brought him to the ground with any missles they could lay their hands on, and thus, bleeding and half unconscious, gave him up to the police.

"Though the Count of Rochecotte persisted, in his declaration, in saying that his name was Ulric Néméré, of the Department of Puy-de-Dône, his identity was conclusively proved by Duplessis' evidence, for the traitor pointed out the scar of the wound his benefactor had received near Vollon. And so, shortly afterwards, he was condemned to death and—in spite of the Viscountess de D——'s efforts to rescue him—shot on the Champ-de-Mars.



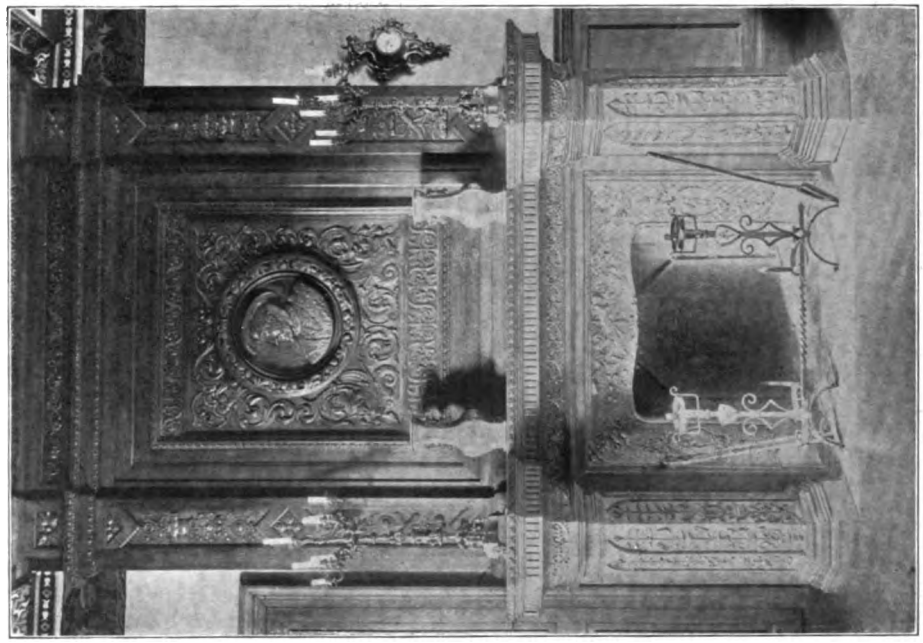
CHATEAU OF REAUX—THE DRAWING-ROOM.

"His loss to the royalist party was an irreparable one. Many *émigrés* in London henceforth despaired of the re-establishment of the monarchy, and Prince Auguste, on hearing that he was dead, gave expression to a touching tribute to his many admirable qualities."

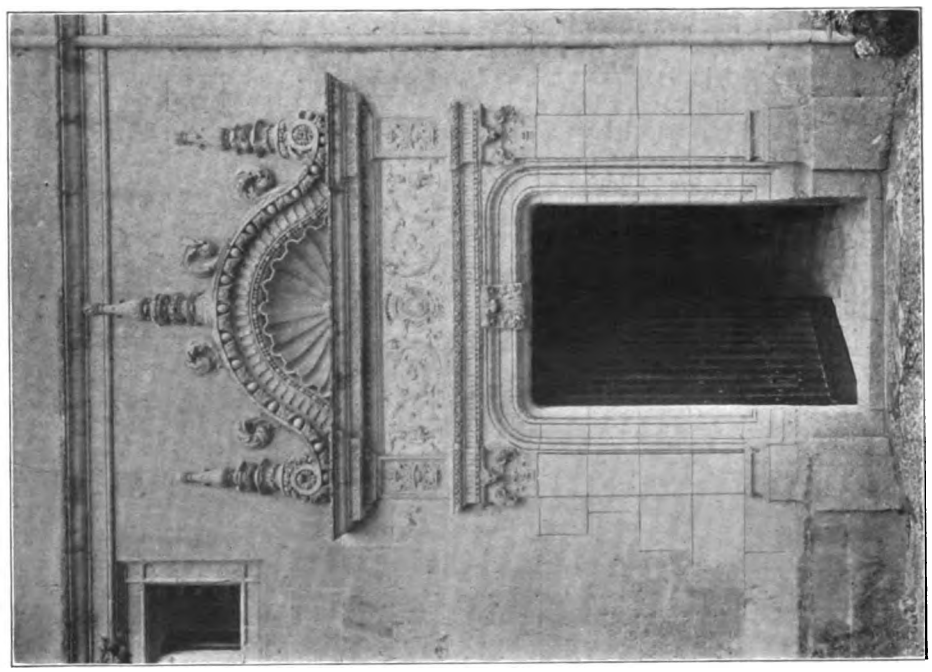
"What an interesting story!" my companion exclaimed, when I had finished. "That little romance of history has quite compensated for the loss of those pictures. I only wish you could promise to

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connect such a one with every château we visit. I wonder what we shall find at Réaux?....And now, *en route!*"



ELABORATELY CARVED MANTLEPIECE IN THE DRAWING-ROOM.



RENAISSANCE DOORWAY.

DETAILS FROM THE CHATEAU OF REAUX.

The Château of Réaux stands at Port-Boulet, a few miles further down the Loire. There, the widening out of the river, whose volume has been increased by the waters of the Indre, becomes more and more apparent. It has now definitely lost that appearance of inoffensiveness which is its most marked characteristic some thirty miles up stream; and the

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country in the immediate neighborhood of its banks being wilder and more deserted it has the aspect, in miniature, of one of the broad, swift-flowing watercourses of the New World.

Réaux, which was once called Plessis-Rideau, or Plessis-Macé, was built in 1462 by Jean Briçonnet, a King's Councillor, President of the Court of Accounts in Paris, and Mayor of Tours; and it replaced a strongly-fortified castle of which little is known save the name. After remaining nearly two centuries in the Briçonnet family, it was sold, about 1650, by the builder's great-grandson, François de la Beraudière, Marquis de l'Isle-Rouche, to Gédéon Tallemant, who obtained letters patent authorizing him to call it the Château of Réaux.

Of all the owners of this delightful country-house in dark red brick and stone—one of the most decorative, with its framework of greenery and its background of trees, in Touraine—Tallemant des Réaux, as he was henceforth called, has reflected most glory upon it. He was the eldest son by a second wife of Pierre Tallemant, a man of considerable wealth, and he was born at Rochelle, on November 7, 1619. Like most of the well-to-do young men of the seventeenth century, he traveled in Italy at an early age, and on returning to Paris took his degree in civil and canonical law, with a view to entering the magistracy, in accordance with his father's wishes. But feeling no inclination for such a career, and finding that his father would allow him very little money, Gédéon married, in 1646, a wealthy cousin, Elizabeth de Rambouillet, the daughter of Nicolas de Rambouillet, his mother's brother. Relieved from further anxiety over wordly affairs, he spent the remainder of his life (he died on November 10, 1692) in the pursuit of letters, in appearing in fashionable society, and in looking after the welfare of his family. He was an assiduous frequenter of the Hôtel de Rambouillet, that famous rendezvous of Parisian literature at fashion at 15, Rue St. Thomas du Louvre, a street now long since demolished, and he thus came into close contact with all the most celebrated people of the day.

"A friend of the Marquise de Rambouillet," says his biographer, M. Monmerqué, "he was surrounded by the most illustrious members of the nobility and the most renowned men and women of letters. He saw this lady—she who was so rightly celebrated, she who was related to two queens, Catherine and Mary of Medicis—in the midst of her noble family, the D'Angennes, in so many ways remarkable; he saw her visited by Madame la Princesse, by Mdlle. de Bourbon, who afterwards became the Duchesse de Longueville, and by the heroes of Rocroy; and he met at her house the Duchesse de Aiguillon, the Vicomtesse d'Auchy, Mme. de Sablé, Mdlle. de Scudery, Mme. de Sévigné, Voiture and that untamed lioness, Mdlle. Paulet, Vauglas, Malherbe, Racine, the two Corneilles, Mairet, Bensserade, Chapelain, Godeau, Huet, Menage, Gombault, and, in short, everybody of note."

No more favorable place of studying the fashionable society of the seventeenth century could have been found than this great Parisian house, so Tallemant des Réaux set to work to make the most of his opportunities: to keep his eyes and ears ever open and to put down upon paper whatever he saw or heard of interest. He collected there numerous stories of Cardinal Richelieu, Ninon de l'Enclos, and Marion de l'Orme; he wrote down the anecdotes he had been told or the impressions he had obtained at Mme. de Sévigné's, at Mdlle. de Scudery's, at the Comtesse de Choisy's, and at the Comtesse de Maure's; he tellingly described financial circles and that rich middle-class world whence he himself had sprung; and, since he was writing merely for his own eyes and those of intimate friends, he snatched away—not, perhaps, without secret joy—the veil which thinly masked the failings of the aristocracy.

It was some seven years after purchasing the Château of Réaux that he began to compile these reminiscences, which, when they were published for the first time in 1832, under the title of "Les Historiettes," were generally pronounced to throw a most interesting light on the men, women, and morals of the seven-

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teenth century. That many and many a hundred pages of these most fascinating memoirs were written at Réaux there cannot be the slightest doubt, and if for that reason only the place is well worthy of a pilgrimage. Tallemant des Réaux may himself be a somewhat shadowy figure, but his writings (the MS. of which was, I believe, found at the château) constitutes such a collection of human documents that one feels drawn towards the scene of their conception.

The next owner of the Château des Réaux was Louis Taboureau, Lord of Louy, Councillor and Secretary to the King, and on his death, in Paris, on May 30, 1746, it passed to descendants, who, during the reign of Louis XVI, built the wing to the left of the entrance. After remaining in the possession of this family for a very long time, it was finally purchased, some twelve or fourteen years ago, by its present owner, M. Julien Barois.

What little restoration the château needed having been done about the year 1850, M. Barois found the buildings in an excellent state of preservation, and in that condition they still remain. He believes, however, that the house was at one time much larger than it is at present. Near the moat—once crossed by a drawbridge—and adjoining the tower to the right of the entrance are the remains of a wall, which in all probability belonged to a building destroyed during an attack on the château;—and that it was actually attacked is clearly proved by the bullet-marks to be seen here and there on its massive, mellow walls. But "what the eye does not see the heart does not grieve over," and we were therefore quite content with the beauties which Réaux could offer us. Viewed from some parts of the grounds, it made a most pretty picture, especially when the foreground was the tranquil, leaf-covered waters of the moat. We admired, too, a fine Renaissance doorway leading from the back of the château to the main staircase, and, before visiting the interior, gave more than a passing glance at the Renaissance dormer-windows and the beautiful little lead figures of armored knights, holding spears, which gallantly surmount the towers.

The drawing-room, which has a painted ceiling of great beauty, contains a Francis First mantelpiece in dark oak, a good example of modern wood-carving by the late Bernard Depont, whose work is to be found in many of the châteaux of Touraine, notably at Azay-le-Rideau and Comacre. M. Depont, who lived for many years at Azay, came of a family of artists, his father being court sculptor at Saxe-Weimer; and his carvings were awarded the highest prizes at French exhibitions between the years 1849 and 1881.

As regards decoration—and I may add that on the *salon* walls are many valuable family portraits—this is the most important room of the house. But the other rooms are in their way equally interesting, as, for instance, the quaint, cosy bedrooms, with their alcoves and ancient doors, provided with holes through which the cat could pass when tired of the company of the occupants; and a certain room, with painted fireplace, ceiling, and walls, situated at the top of one of the towers. We reached this charming little room by means of a narrow stone staircase, the handrail of which, similar to one we afterwards saw at Azay, is cut out of the stone—a staircase so narrow that, as we squeezed ourselves up its winding steps, we wondered how any furniture could ever have been taken up it. But perhaps it was never seriously intended to be anything else than a room for temporary occupation—a sort of look-out over the surrounding country when the enemy was on the march. Certainly a better point of vantage could not have been chosen, for the view from its windows extends as far as Saumur, whose grim castle, standing on a hill, can be distinctly seen on a clear day.

The sight of Saumur, gray and dim in the distance, reminded us that we must once more take to the road, and so, after making our adieus to our hosts, we started off to cover the ten miles which were to complete our journey down the Loire.

Frederic Lees.

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German City Planning

II.

Undeniable evidence of progress in city planning lies in the circumstances that in the planning of the outlying eastern quarter (Ostvorstadt) of Mannhein (Fig. 20), the city that stands for the absolute employment of the checkerboard system, departed from this. In the southeast, beyond the former provisional freight railway yards, there had already been a similarly organized street system developed in a somewhat changed direction. The quarter about the Friedrichplatz and Werderplatz was now laid out in an orderly geometric fashion which gave predominance to a diagonal system.

The magnificent new planning in Strassburg, in the year 1879 (Fig. 21), was developed throughout on the principle of the "avenue," with monumental termination. Here the university bridge forms a member of a great axis which leads from the Imperial Palace to the group of collegiate buildings of the university. Several great institutions of the university lie upon two long streets behind the collegiate buildings without producing a great and unified ensemble; each stands by itself on its rectangular piece of ground. The entire city quarter is attuned to grandeur, and in several places achieves this after the mode of the Parisian edifices of the second empire. No room is left for the mood that lies nearer to the German character —that of an innate intimacy approaching to comfort and human sensibility.

On the other hand, Mainz (Fig. 22) may be cited in comparison. Here, towards the end of the seventies, a new plan included the magnificently conceived Kaiserstrasse, about one kilometer long and sixty meters wide, in a similar sense as in Strassburg. On the axis of this street the site of the Evangelical Church was laid out. In close relation to the Prince Elector's Palace, the present Ernst Ludwig Platz was designed; the enclosed shape of this open space, lying between the Rathaus and Museum, with arcaded promenades, offers the greatest contrast with the place surrounding the church, open on all sides; "shoreless," so to speak.

Strictly geometrical open spaces are altogether too often laid out in a district intended for villa-like development; only the lines of the buildings, however, make geometrical margins apparent. If these are not sharply accented, the geometric intention disappears; that is, between the green of tree and shrub the lines are not recognized; the "handsome plan-picture" does not make itself effective in natural surroundings. The Prince Regent Platz (Prinzregentenplatz), in Augsburg (Fig. 23), in itself a charming design, needed, for example, a corresponding building development in order to express the intentions embodied in the plan.

The plan of Hanover (Figs. 24 and 25) offers interesting details. The open region to the north of the city (the Listerfeld) gave the city planner an opportunity to work with free hand. First of all, he laid out great rectilinear streets, converging towards the inner city, seeking, however, within the main divisions thus blocked out, a diversified and changing configuration. Note, for instance, the way in which the three churches have been located; the removal of the great rectangular open spaces out of the main axis of the streets.

Figure 25, the southern edge of the city, shows in its northeastern part a planning made in about the seventies. The new monumental buildings are not regularly placed with reference to the lakelet, which, unfortunately, is somewhat trivially shaped. This disposition of the buildings will hardly strike anybody as a disadvantage; on the other hand, the view towards the buildings, thus located, offers to persons traversing the open space constantly new pictures.

Unfavorably significant for the "handsome plan-picture" is particularly the Star-place (Round-point); more so the

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accumulation of such places, either of uniform or similar character. And similar are they, almost all of them. The beauty of a city quarter proceeds not from the fact that one repeatedly observes the same scene, but from the greatest possible reception of

clear to himself as to whether he is in one place or another? It may be that when a later generation comes to build, the fundamental idea of a uniformity of open spaces, and thereby of their artistic purpose, will be intelligently contradicted by means of introducing the greatest

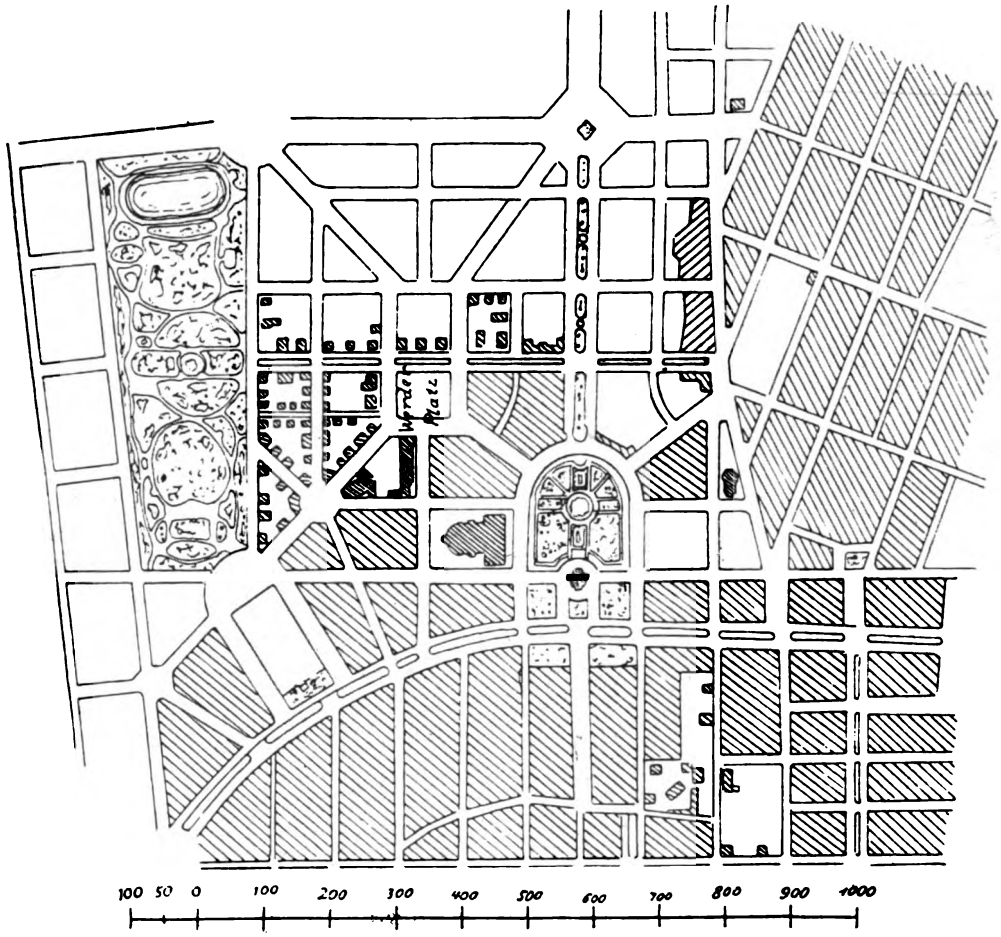


Fig. 20. Mannheim: The development of a plan in the open country. The old city consists throughout of rectangular blocks. The new plan for the Friedrichs Platz and Werder Platz develop a "handsome plan-picture." It is noteworthy, for example, that the Friedrichs Platz interrupts traffic with its great water tower; since the place is occupied by a garden-like design, it compels the taking of a roundabout course.

diversified impressions. The finding of one's way in a city quarter is made easier by a diversity in streets and open spaces, while two similar open spaces in one city remind one of those practical jokes that were characteristic of garden designs in the eighteenth century. How shall the stranger make it possible variety in the surrounding buildings.

Of the symmetry of design which constitutes the beauty of the plan-picture, one is not at all conscious when on the spot. Slight as its practical service is, equally small is its esthetic. This "plan-picture" is only too often

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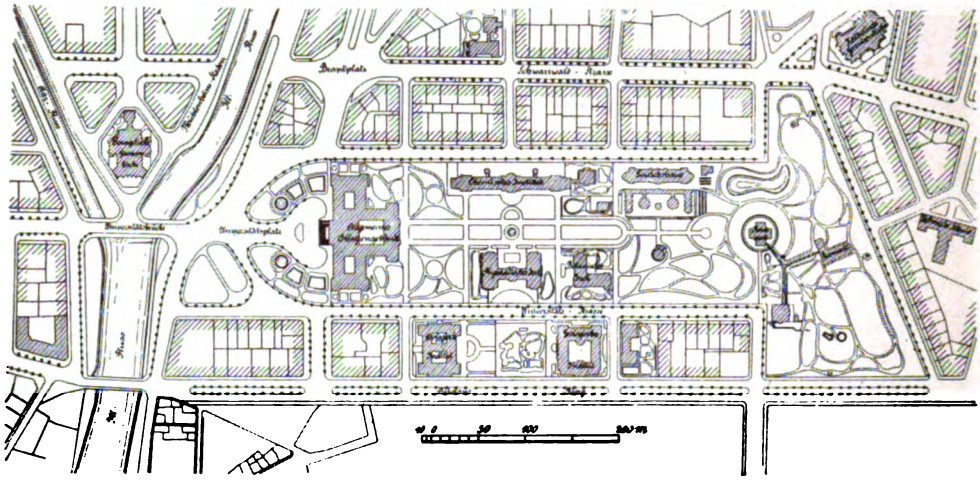


FIG. 21. STRASSBURG: A PORTION OF THE PLAN FOR THE SITE OF THE OLD FORTIFICATIONS.

The great university buildings cover the site. Although they are disposed according to a plan-like fashion, the individual buildings lack artistic relations to each other.

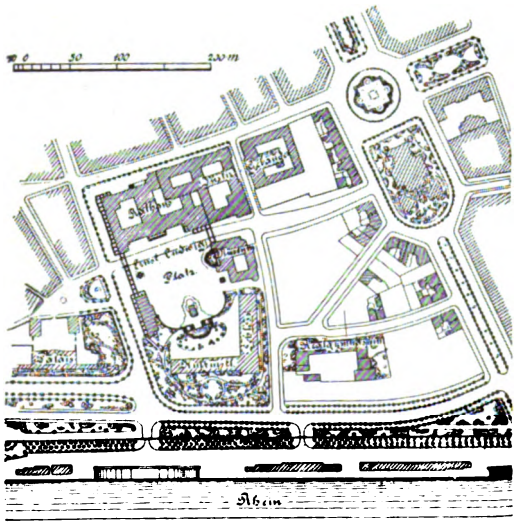


Fig. 22. Mainz: An open space design developed in relation to existing buildings, and on the free site of old fortifications. Note the way in which the structures in the midst of and about the enclosed space have been disposed. (The latter between the Rathaus and the Palace.)

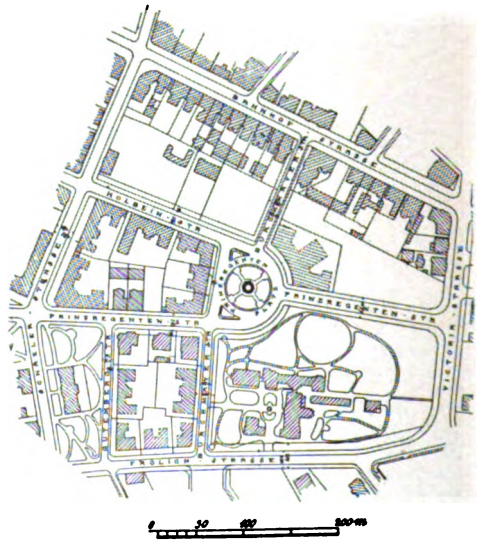


Fig. 23. Augsburg: Design for an open space developed in the open country.

An interruption to traffic has been avoided, notwithstanding the garden-like design of the midst of the open space.

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nothing but a vain, and, for the most part, very expensive amusement, not noticed at all when passing through the streets, but only while looking at the city plan as it appears on paper!

A quite different aspect is that of those city plans which, so to speak, are composed into the natural site with all its irregularities. And, indeed, it is getting to be more and more recognized that the decisive means to protect the city plan from monotony consists in seeking out the proper street lines upon this natural site. That is to say: The city planner may not force upon the site a previously conceived "plan-picture," intended to be transferred to the ground surface in question, but should allow himself to be led along in his planning by the natural irregularities and presented peculiarities of his problem. In the case of hilly sites the plan-picture is necessarily conditioned by circumstances difficult to be overcome. Those of Flensburg (Fig. 26), Barmen, Eisenbach, the south quarter of Dresden, Ulm (Fig. 27), Plauen, in Voigtland (Fig. 29), Kiel (Fig. 30), Aachen (Fig. 31), show strong, sweeping lines adapted to natural circumstances; indeed, this is universally the case with hilly streets. Under such conditions the apportionment of the site must show definitely specialized forms. The endeavor will be to lay out traffic streets with slight grades, whereby the greatest heights may be easily reached. These streets naturally require a widely extended development. One may see what serpentines the city planner of Plauen, in Voigtland, required in order to reach the heights towards which he desired to lay out his streets from the southwest. In round numbers, he had to lay out 280 metres' length of street, while nearby the steep old street reached a like altitude in a length of 80 meters.

Naturally the rectangular street crossings are not employed in case of a hillside site, if the circumstances of the ground are to be taken into account. The angles become so much the sharper the steeper the slope. The blocks receive long-drawn, pointed shapes, and are more adapted to a country-house form of development. The street surfaces at the crossings, in the case of steep grades, result in an unfavorable distortion of the ground form, so that it is desirable to draw out the crossings to an easy length.

The main streets, with gentle descents, become correspondingly long. *One* such traffic street, however, will for the most part be sufficient for a large district. The connecting streets can be laid out in steeper fashion, and thereby may receive the character of the "direct way"; indeed, for pedestrian uses, footpaths, and even steps, may be introduced in order to create short cuts for the pedestrian, who can more easily overcome sharp ascents. In the plan of Ulm (Fig. 27) the streets that go abruptly up the slopes have grades from 1-16 to 1-12, while the principal streets made the heights with grades of 1-30. These are mainly designed for vehicle traffic, the others for pedestrian uses. Ground that has a particularly heavy slope, little adapted to be built upon, is very frequently reserved for garden spaces. The art of the city planner consists in the fact that he brings into the uniformity of related lines some mark of large distinction in the way in which he gives prominence to certain parts of a city and to certain monumental constructions. It may be seen how, in the plan of Flensburg, a hill top is set apart for a prominent edifice, and how a rectilinear feature is in this instance very properly introduced among richly curved lines.

It has required the lapse of considerable time before we could be accustomed to the apparently wilful plan-pictures, which, nevertheless, are in fact an essential necessity through their close union with the natural site. The neglecting of the contours of the site compels expensive cuts or fills, ill adapted to development.

Further, it is a matter for the artistic project to utilize the irregularities of the site in the development of beautiful features. Only the practical creative artist will be able to judge the future effect of a plan development. It will be his affair to intensify his conflicts, and

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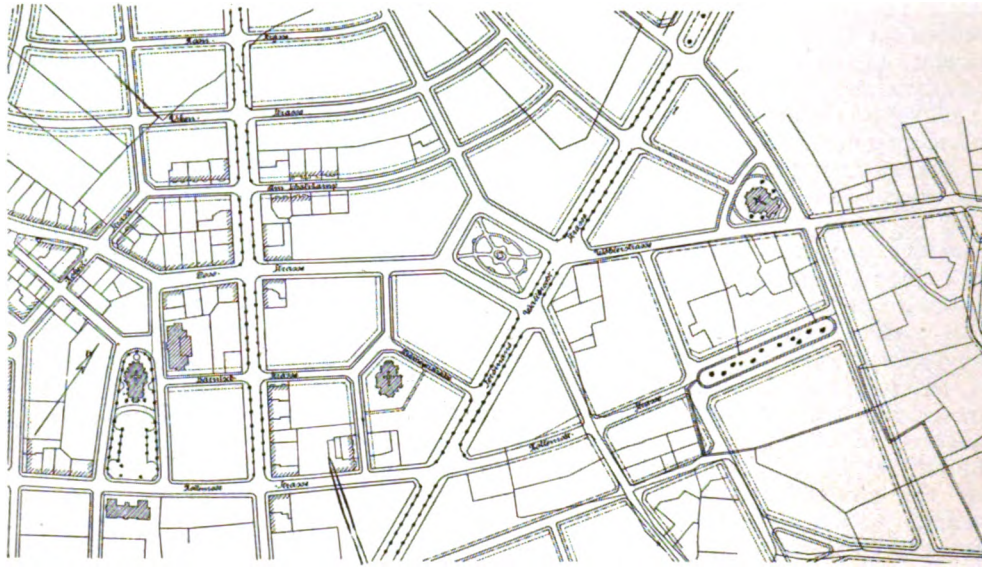


FIG. 24. HANOVER: PLAN FOR THE DEVELOPMENT OF THE LISTERFELD QUARTER IN THE OPEN COUNTRY.

The schematic development of the traffic lines is broken up by means of an artistic planning.

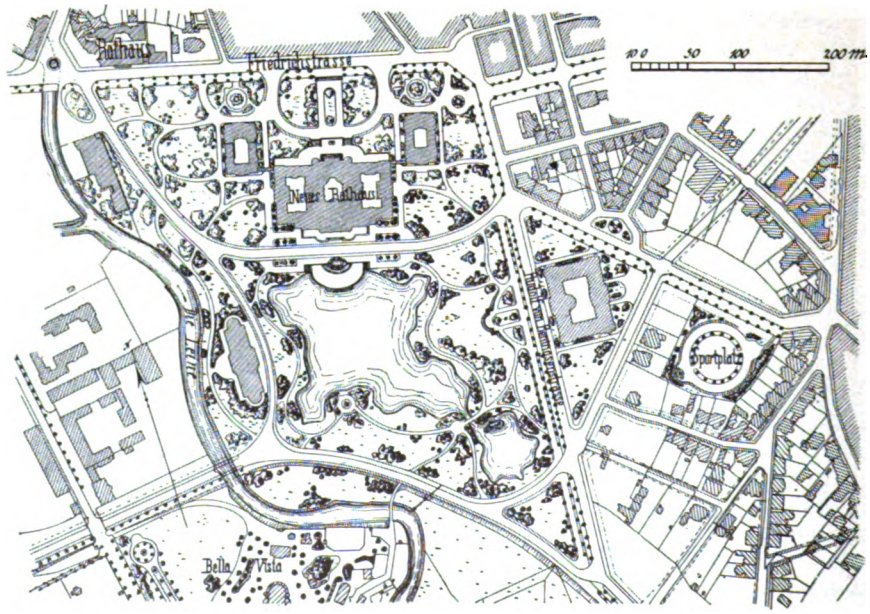


FIG. 25. HANOVER: MARSCHPARK.

Monumental buildings in a picturesque design.

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with them the effects at the points where this procedure is needed; and to offset the practical demands of hygiene, of traffic and of inhabituality, with the desires for embellishment.

A similar striving after a diversifying beauty should be the aim of plans for the more level sites. Here irregularities are often removed at great cost, when, if skillfully utilized, they might have led to individual and attractive motives for embellishment. The city planner should *seek* such opportunities in order to create from them diversified effects, which should impress themselves upon the memory of passersby and therewith facilitate the finding of one's way. For it is most difficult for one to find the way in a city quarter that is divided off in completely uniform fashion. If one only realized how many attractive structures and natural effects have had to give way to imaginary "demands of traffic," simply because it was not thought worth while to give attention to such "trivialities" in the planning of this or that scheme, it will be comprehended why it is that the modern leaders in city planning always point to the subordinated details of given conditions as a source of inspiration for achieving beauty and originality; it will also be seen why it is that they strive most strenuously against the creation of necessities by considerations of symmetry, rectilinear methods, or similar implied conditions.

The swinging line has, therefore, also made place for itself under circumstances where the site did not unconditionally demand it. The partial plan of Darmstadt (Fig. 28) offers an instance. It is divided by two main lines; the open spaces are disposed *beside* these lines and are completely tranquil. The side streets are distinguished as genuine dwelling-house streets, narrow and not adapted to through traffic. The quietness of the quarter is assured.

A success in modern city planning is the new design for Munich. Here, for the first time, it was ventured to introduce freely disposed curves in the design of metropolitan main thoroughfares. An instance is the prolongation of the Arnulfstrasse (Fig. 32) through Neuhausen to the Nymphenburger Hirschgraben; also the Prince Regent Strasse (Prinzregentenstrasse, Fig. 23). In both cases it is a problem of widely extended streets, designed for a future development of intense traffic, laid out in a territory which shortly before was still completely unbuilt upon; in other words, a district in which the limitations were set not by external compulsion, but by the freely creative art of the city planner.

The new plan for the northern margin of Stuttgart (Fig. 36) exhibits very plainly the old and the new methods of development. It became necessary since the sharply rising slopes offered obstacles too great for the execution of a regular system in planning. At the same time it was a factor in the problem to make it possible to bring out better than before the landscape beauty of the line of heights that surrounds Stuttgart.

Modern city planning distinguishes itself from the older practice through the prominence given the *artistic* motive. That is to say: Just as an artist is able to create the plan of a church or palace that is perfectly adapted to its purposes; just as, in such cases, it is his task to work with a conscientious regard for all demands imposed by necessity, and directly to give his work a worthy development—so artistic city planning is to be understood as that which does not work according to systems, but according to the specific conditions of the case in hand. Not artistry, but the appropriate development of all the advantages that may be, with due regard to the specific problem, is the aim. The artistically creative city planner should seek out all peculiarities of the site and emphasize them according to their individuality; thereby, whenever possible, reconciling every contradiction between his planning and the aspects of nature. He should take into question the irregularities of the surface, the existing streets and ways in their natural configuration, the property lines and the single natural features—even if nothing but several old trees. Notwithstanding

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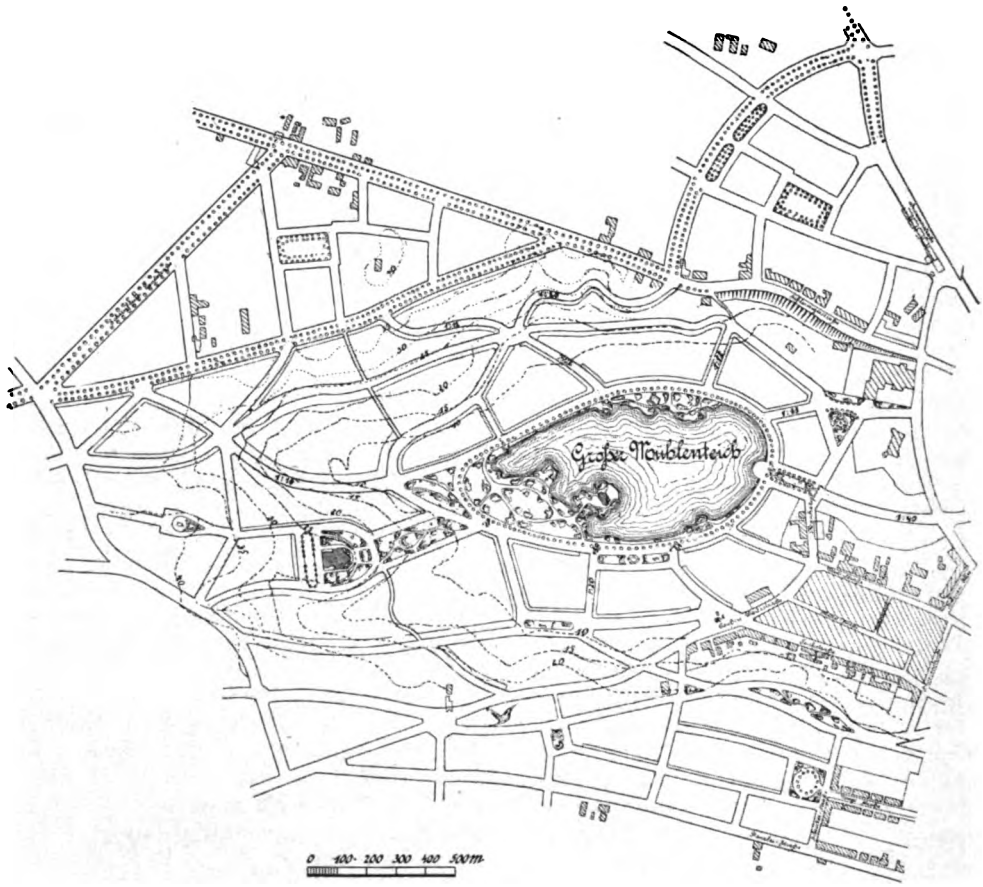


FIG. 26. FLENSBURG: THE UTILIZATION OF AN UNDULATING SITE FOR DECORATIVE FEATURES, AND A RESIDENTIAL QUARTER.

The problem is the treatment of a valley with a pond in its lowest part. Significant is the vista from the city looking over the pond towards a pleasure house erected upon a hill. No extensive traffic is looked for through the valley itself. The main streets lay around the valley, which is intended to serve as a quiet residential quarter.

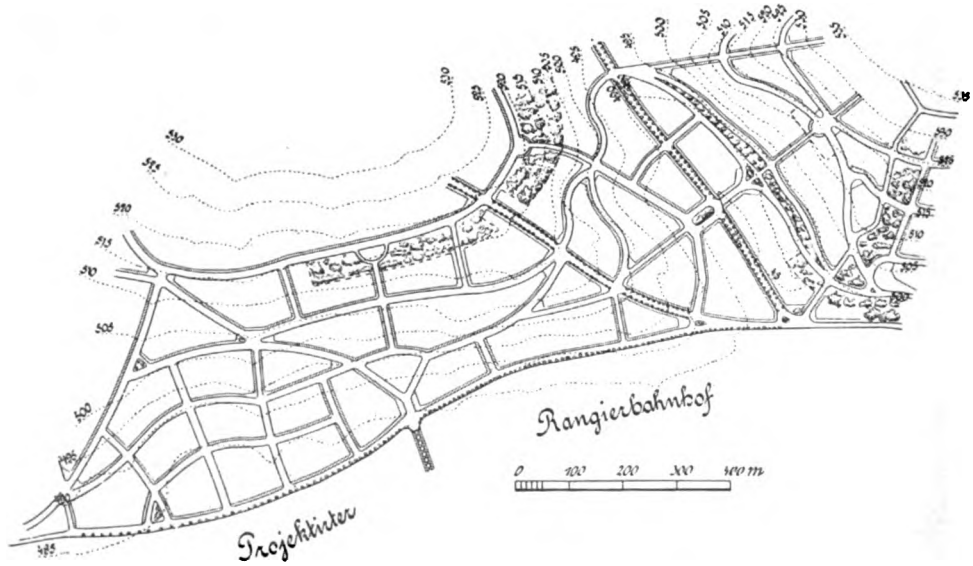


FIG. 27. ULM: PLANNING OF A STEEP SLOPE WITH STREETS OF DIVERSIFIED GRADES.

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this, he should impart all practical advantages to traffic, to circumstances of habitation, and to the administration of individual properties; and, finally, he should offer the architect opportunities for interesting solutions of his problem. He should allow the conditions of the site to inspire him to achieve the most individual and diversified solutions imaginable. Then, again, it must always be borne in mind: *Diversity* in the discant motives for development and for artistic achievement. From this, however, no hard and fixed rule should be inferred. An artist in city planning can just as well develop his irregularities upon the ground devoted to open spaces and streets.

Herewith some of the fundamental conditions of practical planning have been considered; one must next have studied *traffic*.

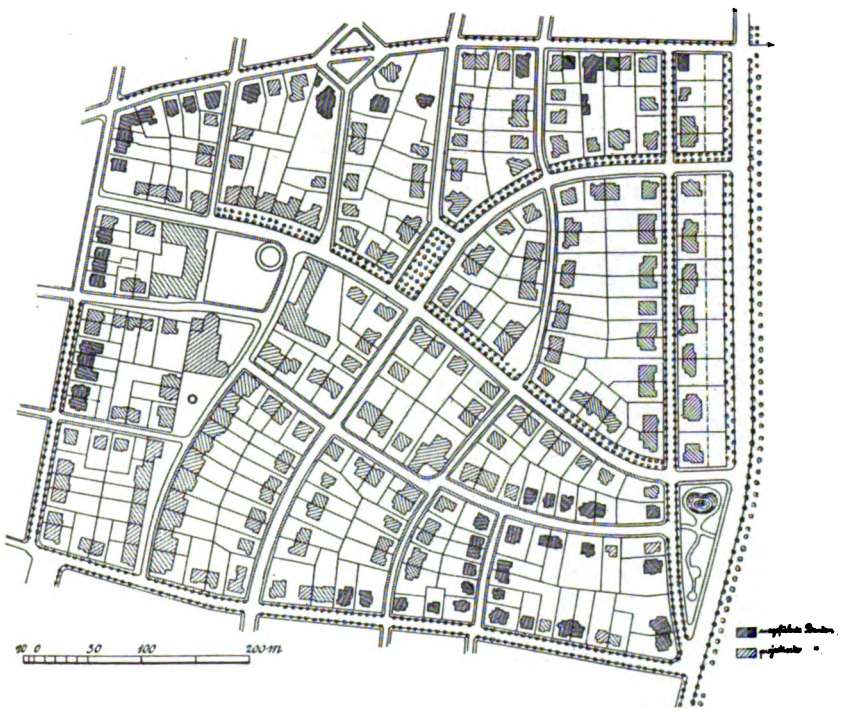


FIG. 28. DARMSTADT: PLANNING OF A CITY QUARTER PARTLY FOR SEPARATE BUILDINGS, PARTLY FOR BUILDINGS IN GROUPS, AND PARTLY IN BLOCKS, AS WELL AS FOR SEVERAL PUBLIC BUILDINGS. NOTE HOW SKILLFULLY THE LATTER HAVE BEEN DISPOSED AND BROUGHT INTO RELATIONS WITH THE OPEN SPACES.

position of the plan gives to the architect opportunity to develop his ground plan and his façades in interesting fashion, thereby embellishing the city internally and externally.

In the meanwhile it should very easily be possible to introduce irregularities in the conformation of the individual blocks without thereby diminishing the value of the same. Under certain circumstances one may thereby even furnish municipal architecture with signifi-

If the overtaking of one vehicle by another, as, for instance, on bridges, can be prevented, a regulated vehicular traffic is the result. This allows very large volumes of traffic to pass without interruption over a given street. Disturbances arise, in the first place, from the inequality of movement due to the fact that some vehicles do not move steadily onward in the line of traffic; they remain standing, they move more slowly or faster, they overtake each other;

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secondly, because they do not keep to the regular lines of traffic, but cross these, enter into them and depart out of them.

The first sort of interruption compels the principal traffic streets to be laid out at such a breadth that, beside the lines of traffic to and fro for the ordinary use of the locality, there has to be allowed at least a width sufficient for vehicles proceeding in either direction to overtake each other, and also to allow them to stand in the street, without

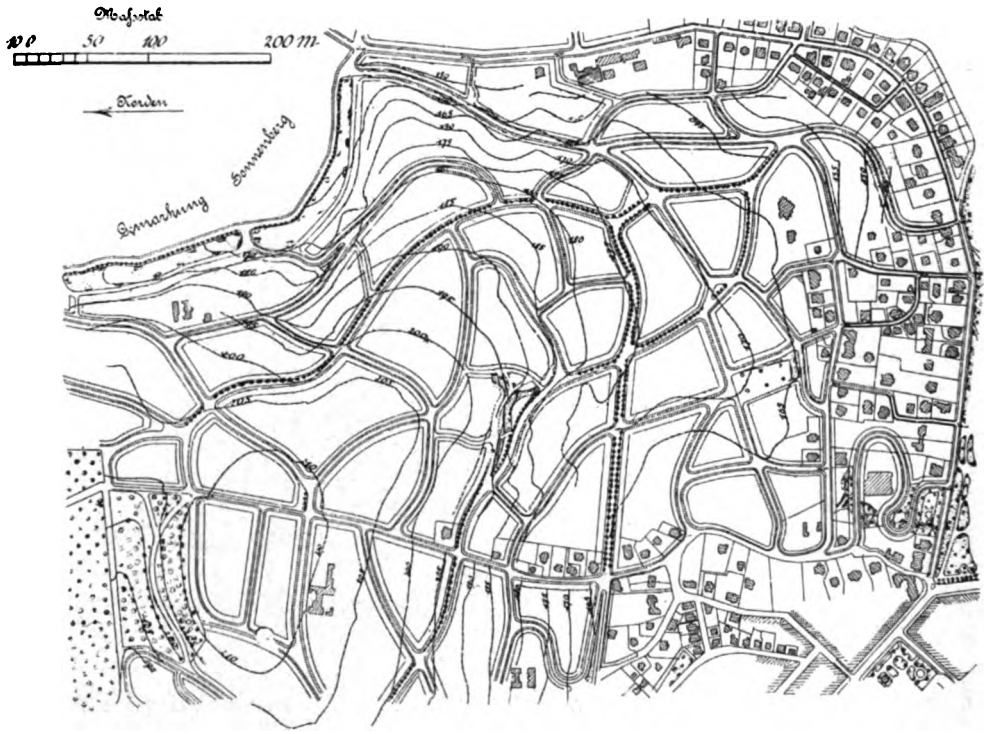


FIG. 29. PLAUEN IN VOIGTLAND: PLANNING FOR A VERY UNDULATING SITE WHERE GRADES EXIST AS HIGH AS 1 IN 4; IN THE NEW MAIN STREET LINES THESE HAVE BEEN MODIFIED TO SOMETHING LIKE 1 TO 10.

thereby causing a congestion of traffic; moreover, sufficient street room for movement on foot must remain. This applies, as has been remarked, only to the principal traffic streets; the others may be given a lesser width. The greatest task of the city planner is therefore to separate, from the start, the traffic streets from the habitation streets.

There are two fundamental ideas in relation to a far-sighted and careful planning with regard to the width of streets: To remember that later on streets that have been designed too narrow will not be adequate for traffic when the city gains in population; and to remember that the city treasury should not be burdened unnecessarily by the acquirement of unrentable ground, thus increasing the cost of street construction and maintenance. The means for solving this problem on the part of modern city planning lies in the most distinct separation possible of streets according to the manner of their use. And the solution is accomplished by means of the clear, and, in case of need, remorseless laying out of various main lines through the district to be developed and the dividing up of the great blocks thus formed by means of streets whose situation is so chosen that a large traffic cannot come to them. The examples of Charlottenburg (Fig. 19), Darmstadt (Fig. 2), etc., may elucidate this rule.

The second form of traffic interruption

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arises from the intersection of lines of movement. These can be dealt with in the most diversified manner. Next, attention should be given to the matter of pedestrian movement. This does not consist in a direct movement to and fro, but requires the studying of open-space traffic.

By *open-space traffic* is to be understood that which comprises the movement to and fro in a given place, not only in the sense of commerce (markets for vegetables, fish, flowers and the Christmas season), but also in the sense of the forum, where the citizens assemble to talk and discuss, stroll about for pleasure, where children play, nursery maids roll their children's carriages about, and where monuments of eminent men and other works of art stand for the sake of quiet observation. The inhabitants of cities laid out in accordance with modern city plans have almost forgotten that they, also, have the right to stand still in their streets and open spaces. For these hardly give any inducement thereto; they are only a sort of enlarged knots in the street. Police administrations complain of the circumstance that it is difficult to find a good site for a hack-stand in a new city quarter outside of the traffic district. Playground spaces for children are hardly practicable; an assemblage of the people is possible only by the interruption of traffic.

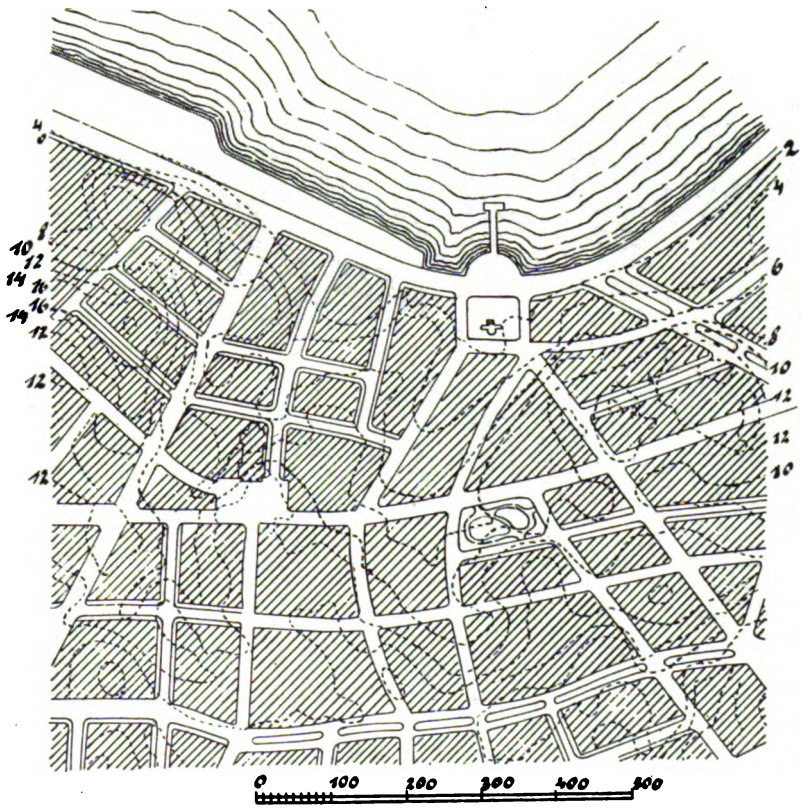


FIG. 30. KIEL: PLANNING FOR A BROKENLY UNDULATING SITE.

When one has thus gained a close comprehension of the nature of through traffic one arrives at other conceptions of the functions which the open spaces of a city have to provide. They learn that it is the task of the city planner so to shape his design that a conflict between pedestrians and vehicles may be

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avoided so far as possible. In the case of perverted design the police cannot accomplish much. The city planner is responsible; it is his place to see that open-space areas are provided to a sufficient extent; that traffic does not come into contact with these, to the end that citizens may here assemble without interrupting ordinary street movement, or without being disturbed thereby. Quiet should prevail in the open spaces; one should be able to stand there without

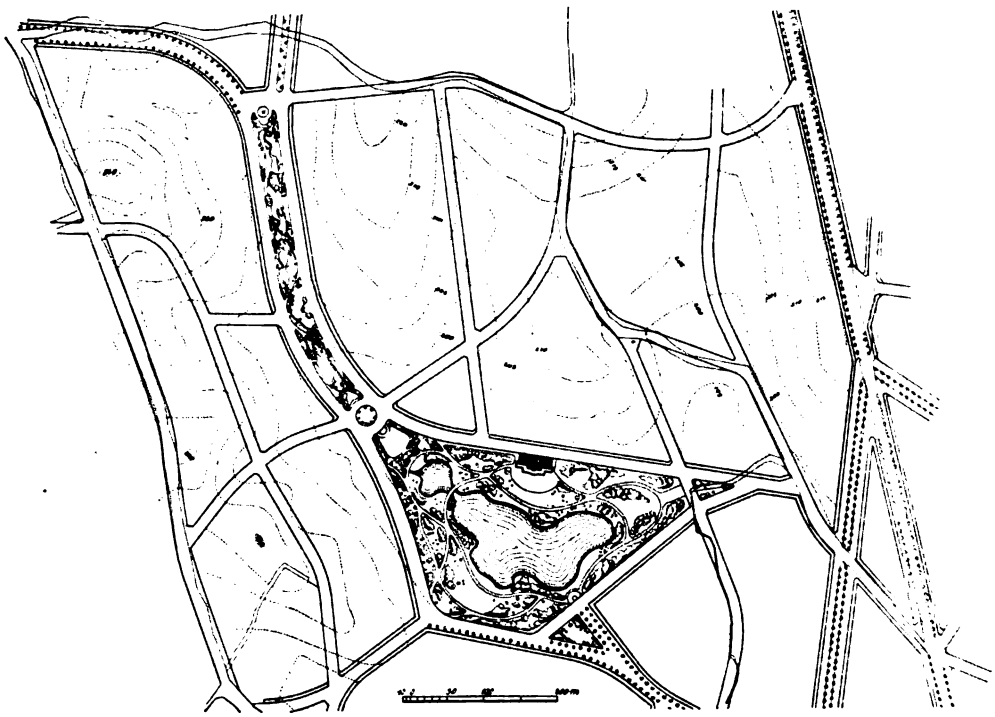


FIG. 31. AACHEN: PLANNING FOR AN UNDULATING SITE WITH IMPORTANT DECORATIVE FEATURES THAT RUN DOWN IN TONGUE-LIKE FASHION INTO A VALLEY.

running the risk of being knocked over. It is not the police that should look out that the through traffic does not enter upon the open space, but the city planner, and the latter should not keep traffic at a distance by barring it out, but by means of sagacious planning. A good open space can very well lie upon one or more streets, but however wide a traffic street may be it will not serve as a good open space. The so-called "traffic open space," however, is wholly unnecessary, and is, indeed, nothing less than a *failure* in our city planning. The greatest lines of traffic in the world have no traffic open spaces; neither those of London, of Paris, or of New York.

Doubly bad are those designs for open spaces which have been developed only for the sake of the "handsome plan-picture"; in particular, the "star places" (round points). They represent concentrations of traffic, while, in fact, all the intention of the city planner should be devoted to *enticing* traffic to avoid the crossing of several routes at one place. Regarded wholly apart from their lack of artistic beauty, "star places" are also to be regarded as unfortunate left-overs from an antiquated method of planning which takes traffic conditions insufficiently into account. They offer no opportunity for open-space intercourse, for the reason that through traffic is not to be kept away

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from the spot. From the point of traffic technique they are the most unfortunate solution of the problem conceivable. While it may be seen in the new city planning of Munich, which artistically stands so high (Figs. 34 and 35), what efforts were made by means of alterations in street lines to get rid of the "star place" of the former plan, the new planning of Dresden heaped "star place" upon "star place." It was not alone this circumstance which caused the plans of Dresden to be regarded as the most backward of the entire exhibition.

The shaping of the *street intersections* must further arouse the attention of the city planner. It cannot be denied that the usual rectangular crossing of two principal lines of traffic is the most unfortunate form which can be chosen. The means mostly resorted to are to effect a strong cutting off of corners, and the creation of an "island" for foot traffic in the middle of the place. They are, indeed, thoroughly apporpriate aids in overcoming the evils of the faulty planning, but they are not proper solutions of the given task. The example of the railway teaches us that



Fig. 32. Munich, Arnulfstrasse: The city lies to the right. The street does not show throughout its course the customary parallelism of lines, but opens out into various expansions for hack stands, etc., and for diversifications of shape. Interesting is the situation of the churches in relation to the main line of traffic; they lie quietly in a quiet place, not on the street, or indeed in the midst of the street.

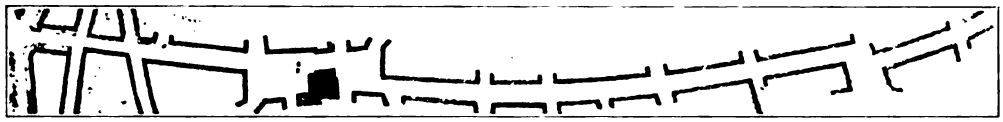


Fig. 33. Munich, Prinzregentenstrasse (Prince Regent Street): The city lies to the right beyond the Isar. From the river the ground rises abruptly. The place by the Prince Regent Theatre is to be regarded as a future central point for the new city quarter, which is growing up on the heights.

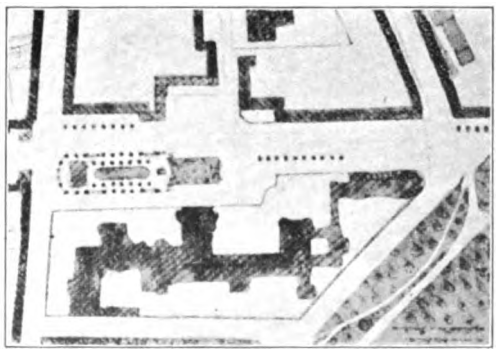


Fig. 34. Munich: The Design for the Open Space by the New National Museum.
Traffic is caused to pass by on one side. The borders of the place are so disposed that the place appears to be artistically subdivided by portions of buildings that project like the wings of a theatre stage. The garden-like feature is located on one side away from the axis of the open space, and, therefore, does not interrupt traffic.

a junction of both lines for the time being in a common line, after the manner of a double siding, is to be given the preference over the abrupt crossing. This leads to the configuration of the crossings, likewise, upon an even site, after the manner in which they spontaneously develop on a hillside; that is to say, in gentle fashion. The difficulties that arise from this are not to be denied, in particular the circumstance that the blocks for building become irregular, ending in sharp angles. It is, therefore, a matter for consideration in each particular case as to what shape may be most appropriate for the crossing of streets.

The question as to whether irregular forms, *remainders* from the subdivision of a site, should be included in the building ground or in the street area is a mat-

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ter much discussed. Open spaces should by no means have a configuration that gives them the appearance of land fragments, which could not be utilized for building purposes. They demand, even more than the streets themselves, an artistic shape; that is to say, the city planner, when he designs them, must be in condition to conceive of the artistic effect of the open spaces after the building up of their environment. The manifest esthetic inferiority of modern designs for open spaces and streets in comparison with the ancient ones has led to deep consideration concerning the artistic tasks of city planning, and on the part of the leaders in the new movement has occasioned a decided antipathy against geometrical, and, in particular, against straight lines.

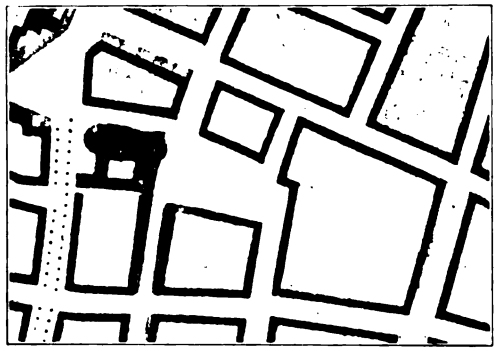


FIG. 35. MUNICH: THE DESIGNING OF A PLACE FOR THE ERECTION OF A CHURCH.

Conditions: A quiet situation; physical connection with the adjacent buildings; good view of the principal features, particularly the west façade and the choir; convenient accessibility without much crossing of traffic ways.

There can be no doubt that the monotony in plotting the corners of streets and open spaces is intrinsically an esthetic fault of modern cities. Sites that run to a sharp angle are undoubtedly ill adapted to building purposes; therefore they mostly remain lying idle for a long time. For the façades are very long in relation to the ground plan; the edifice is thus expensive in relation to its contents; the development of the rooms is accompanied by manifold difficulties. From many sides, therefore, the principle has been advanced that that sort of designing must by all means be avoided; one more objection to the "star place," which necessarily exhibits several pointed angles.

On the other side it has been emphasized that the architect can very easily utilize irregularities in a piece of ground for attractive interior developments, or

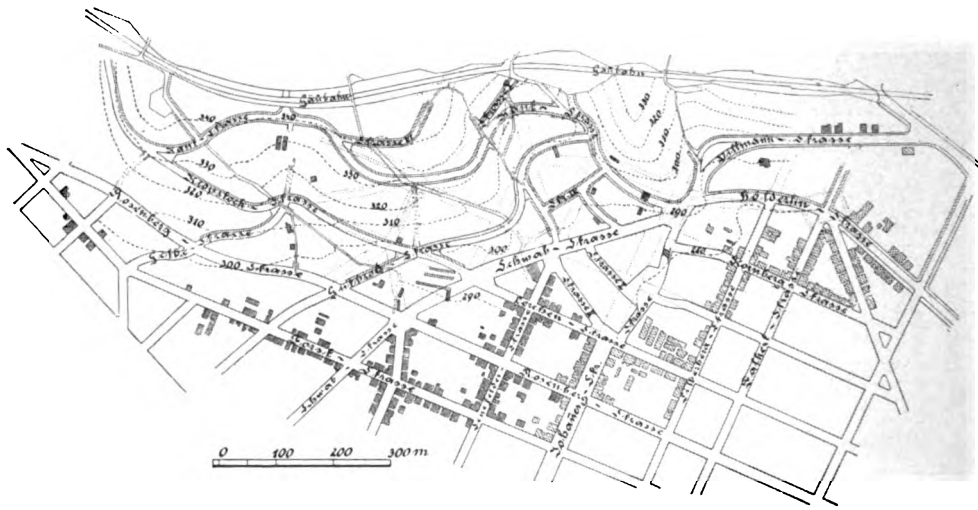


FIG. 36. STUTTGART: NORTHERN MARGIN OF THE CITY.

The rectangular residential quarter of the Feuersee lies upon a comparatively even site. The dotted lines represent the planning of 1896, which was carried into the steeply rising heights of the Vineyards. It resulted in grades almost impossible for vehicular traffic; it, therefore, compelled a change from the regulation planning to one adjusted to the site.

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that these irregularities can be easily occupied by additional rooms, so that the building itself loses little or nothing in value. A uniformity of building lots must lead to a uniformity in the development of the ground plan and to a scheme of habitations which for the desirable individualization of a single dwelling is not well adapted.

Therefore it has been proposed to give all corners a rectangular configuration, and to transfer the irregularity to the successions of house after house; in these, however, we are necessarily to introduce curves, as was done in ancient times. In behalf of this stands the circumstance that the sharp rectangular corner has artistically a great attractiveness. Unfortunately, the cutting off of a corner has gained a place in city planning almost universal, for the reason that by this means the movement of traffic around the corner is facilitated. Since, however, everything has its pro and its con, so it is with the cutting off of corners. In frequent application it makes the streets tedious, makes ugly breaches in the street lines. On the margins of the open spaces, it has the effect of a funnel leading into the streets, and it enhances the difficulty of developing an expressive façade architecturally, since the forms often become feeble and weak.

More and more, therefore, the introduction of curves and angles in the street lines is resorted to; that means forsaking the straight lines which hitherto, at least in the level sites, were predominant; also, the abandonment of the parallelism of street lines, which hitherto was hardly contested. These new ideas in design are shown at their best in the Munich streets (Figs. 32 and 33).

The *straight line* in city planning has one characteristic of its own which essentially conducted to its preference: its juristical convincing power. When a line is drawn with free hand through pieces of property the owners find it difficult to make clear to themselves that it had to run just so, and not somewhat otherwise. They will endeavor to modify it to their own advantage. But between two points there is only *one* straight line, and this permits no contradiction.

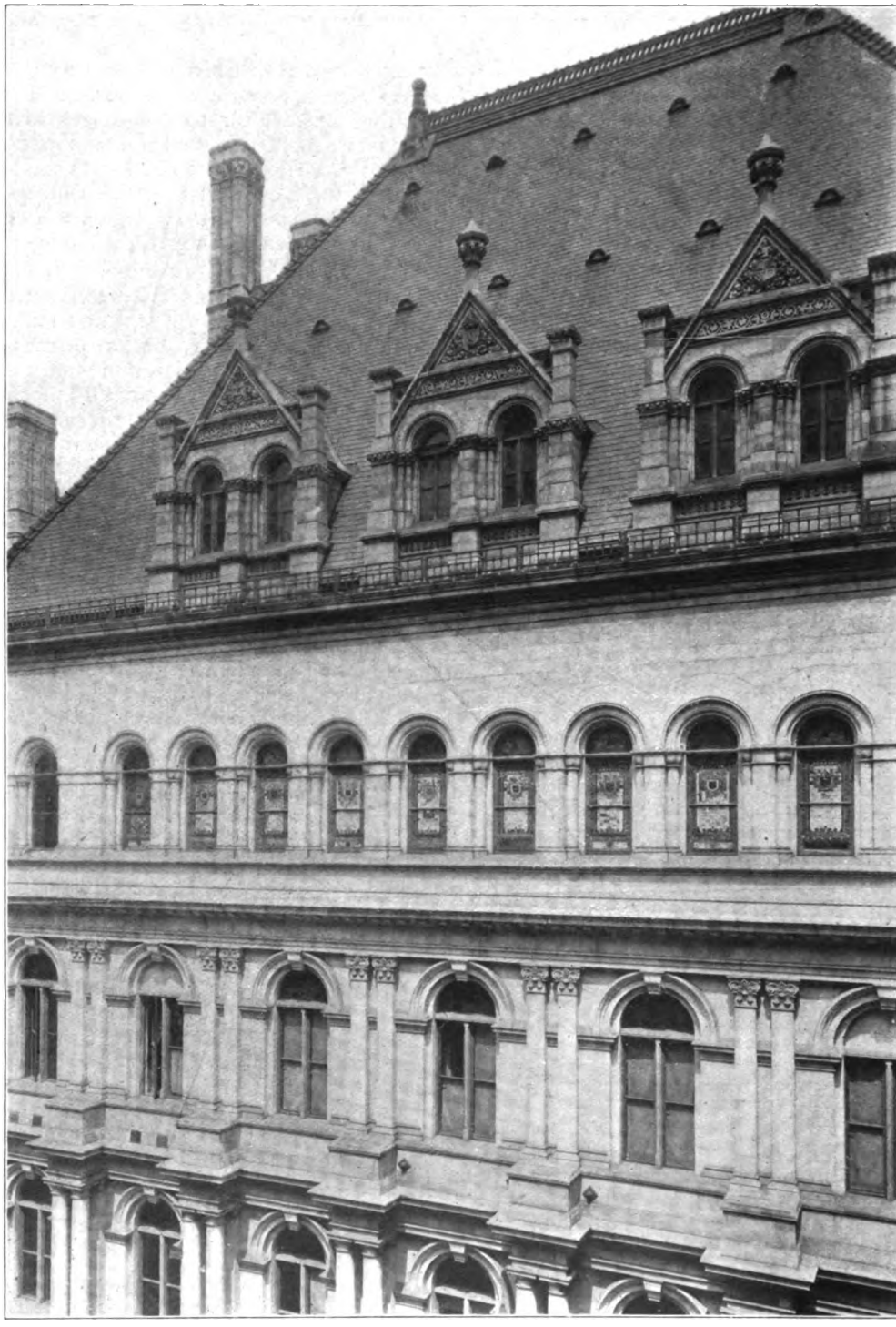
In legal affairs that, however, is not a case by itself. Not the scheme should be the decisive factor, but a justness which takes into consideration and reconciles all the related circumstances. In city planning, moreover, the advantage of *one* property only is not the decisive thing, but a commensurate taking into account of that which serves the general well-being.

It follows from all this that *no* system may claim sole pre-eminence; that herewith the task of the city planner must be directed to setting himself free from the schematic systems that now prevail, and handle his work as that which it really is: a branch of architecture. It is the affair of architecture to solve the tasks presented to it in practical fashion, giving them the shape that corresponds to their nature. Whatever is artistic about them is developed from the problem. Whatever is contradictory to the purpose or which neglects it cannot work artistically. Hence only that which is practicable can be truly artistic, truly beautiful, and only the beautiful can be practicable. Hitherto only too often have city planning and art been in opposition; thereby art has suffered heavy losses. Still heavier, however, were the losses of city planning, for it degenerated into an impractical and deadening schematicism. Art, however, is always multiformed life!

Cornelius Curlitt,

Translation by Sylvester Baxter.

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THE CAPITOL—THE COURT FRONT OF THE "NORTH CENTRE" (1878).
Albany, New York. Leopold Eidlitz, Architect.

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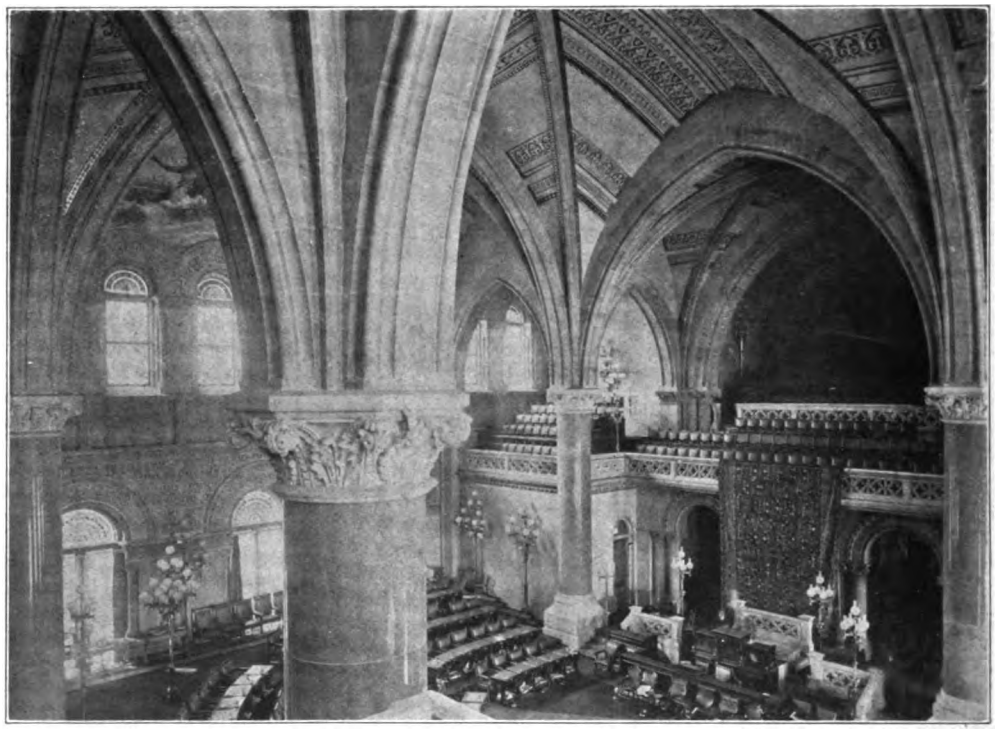
The Work of Leopold Eidlitz

III.—The Capitol at Albany

When, at the beginning of 1875, Samuel J. Tilden succeeded John A. Dix as Governor of New York, the new State Capitol had been in progress for seven years, had reached the middle of the third story, and had cost four millions. In design, it was a perfectly commonplace specimen of the Renaissance of the period, as practised in North America, with a particularly tormented sky line, tormented with a number of Mansarded roofs and pavilions and pediments and small towers. It had gone far enough to excite suspicious inquiry into its practical convenience, ultimate cost and probable protraction. An investigation into these things would doubtless in any case have been made by an incoming Democratic administration. That the investigation included the architecture, and had such revolutionary consequences, was due to the fact that the commission in charge of the Capitol was that year changed from a special commission to a commission which held its place ex-officio, and that the president of it became Willam Dorsheimer, the new Lieutenant-Governor, who came in with Tilden. Tilden himself, with all his eminent qualities, was as innocent of aesthetic perceptions as a horse. It was in deference to Andrew H. Green that he chose Green's artistic favorite and one might say protege, Calvert Vaux, to design his own house in Gramercy Park, now the abode of the Arts Club. The Governor refused to concern himself in the "battle of the styles" that raged around the revised design for the Capitol. When the drawings were shown him, they fell upon blind eyes, and his only question about the revised design was "How much will it save?" An antique Roman, like those to whom Cicero found himself bound to apologize whenever he exhibited an effeminate and Grecian interest in literature or art! Like his Boeotian successor, Lucius Robinson, who refused to attend the opening reception of the "North Center," and of whom the late Noah Brooks feigned that he had computed that the interest on the cost of the Capitol would permanently supply Chemung County with chewing tobacco. But Dorsheimer was very consciously a person of culture, and indeed of all his public services, some of them famous in their time, like that bold and eloquent appeal for the gold standard, made in his big Boanergean voice and backed by his huge "presence," which he made in the St. Louis convention which nominated Tilden for the Presidency, this revision of the original design for the Capitol of New York was the most notable and perhaps the most memorable. It took less than Dorsheimer's degree of culture to perceive that the original design for the Capitol was by no means up to the highest standard of the time, being a perfectly uninspired and conventional compilation, proposed to be executed by means of conventional shams. This was the more remarkable because the architect, Mr. Thomas Fuller, or his associates, had just "come from doing" in the new Capitoline buildings for the new Dominion of Canada at Ottawa, a picturesque group, in free Gothic, which was not conventional and which might lay fair claim, as such claims went, to a degree of architectural "inspiration." The architecture of the Albany Capitol was not above that of the then new State War and Navy Building in Washington, or the then new New York Post Office; pretty distinctly below that of the then new municipal building in Philadelphia. Dorsheimer sought an Advisory Board and found it in Leopold Eidlitz, H. H. Richardson and Fred Law Olmsted, associated, when they had superseded the architects they were appointed to investigate, as Eidlitz, Richardson & Co. Richardson, whom Dorsheimer had known at Harvard, and whose appointment to design the Insane Asylum at

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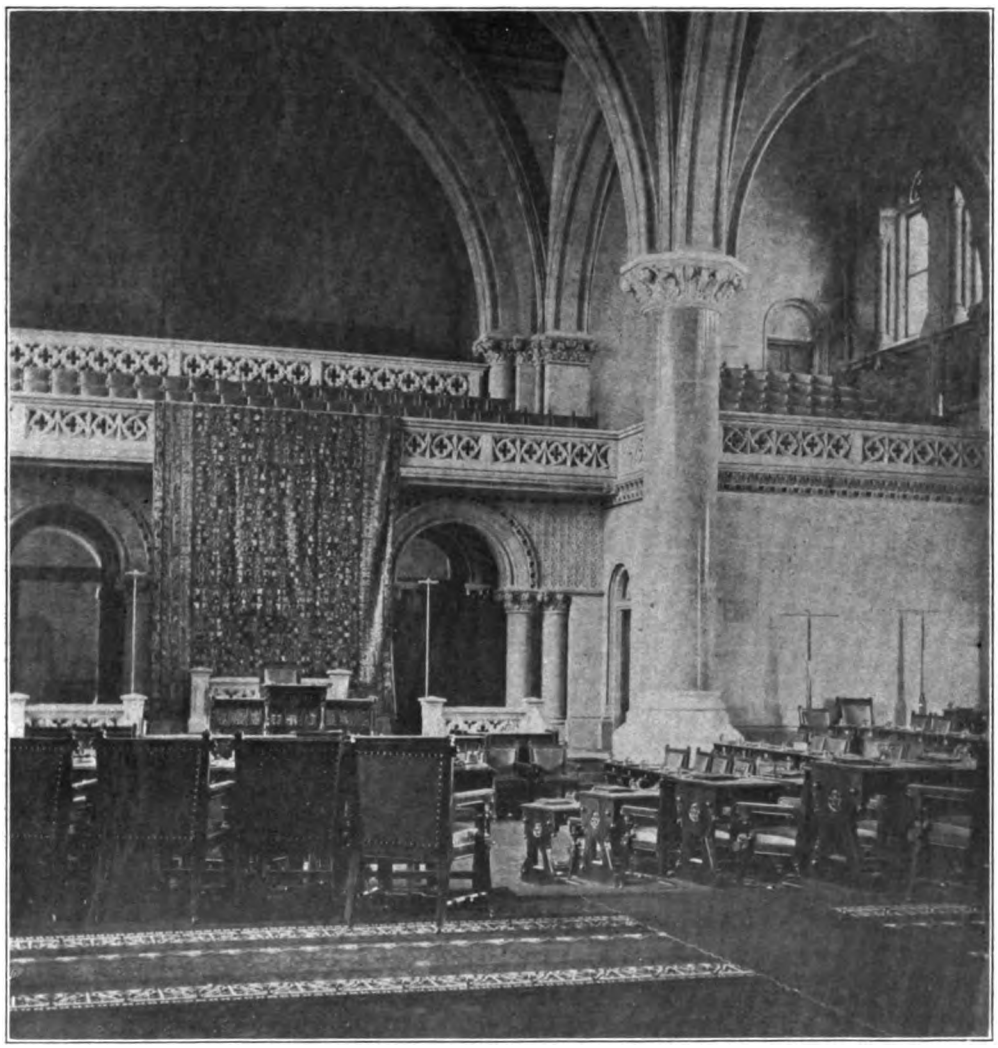
Buffalo he had brought about, was his personal selection; Eidlitz owed a choice about which he knew nothing beforehand to the generous urgency with Governor Tilden of the Governor's friend and counsellor, Manton Marble, then editor of the World, that most variously accomplished man and most sensitive to all varieties of excellence, whose urgency was founded purely on artistic admiration, and was not at that time, I think, complicated with any personal acquaintanceship. A more gratifying or purer source of employment an architect could not have. It carried with it no obligation to the architect, except that of justifying it by doing his best. Olmsted's name, in those years, almost imposed itself upon whoever was desirous of a circumspect consideration and a wise solution of any problem pertaining to an important public work. The report, which left the plans under which the building had so far been carried on without any architectural or practical defence, was the individual work of Mr. Olmsted. The drawings which accompanied and illustrated it, were the individual work of Mr. Eidlitz. The effect they produced on the general professional mind was extraordinary. They showed a complete contempt for the indestructible beginnings of which they were necessarily the continuation and in connection with which they were necessarily to be seen. There was, truly enough, a lack of comity in the operation. It is easy to see now that the professional bodies which remonstrated against them had some reason, though fervid partisans of the new design attributed it at the time to "trade unionism," the revised architect being the president of a chapter of the A. I. A. Nor was the opposition disposed of, either logically or artistically, by the new designer's answer to a question "what business" he had to superpose his German



THE CAPITOL—THE ASSEMBLY CHAMBER, LOOKING NORTHWEST (1878).
Albany, New York. Leopold Eidlitz, Architect.

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Romanesque on the Italian Renaissance. "What business had Fuller to put that basement under my building?" If it had been merely a basement it would not so much have mattered. But in truth the building was committed part aesthetic. So preached the American Architect, then newly established under the editorship of Mr. W. P. P. Longfellow, who was much more nearly in the right than any of the partisans. The opposition was so far successful



THE CAPITOL—THE ASSEMBLY CHAMBER, LOOKING NORTHEAST (1878).
Albany, New York. Leopold Eidlitz, Architect.

in style, and the unquestionable improvements in simplification, in breadth, in repose, as to the mass, if not of vitality and individuality in the detail, might have been managed without so violent a shock to sensibilities which were not altogether conventional, but at least in that, after the Romanesque reconstruction had been carried to the spring of the arches in the upper arcade, the legislature ordered a return to the Italian Renaissance for the completion of the exterior, and the commission devolved the execution of this behest upon Richard-

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son. His genius for simplification hardly ever appeared to better advantage. Construing his instructions very liberally, he based his design for the completion not upon the Italian but upon the French Renaissance, upon the architecture of the châteaux, and, retaining the massing and the composition of his elder associate, he greatly improved them, as that associate cordially acknowledged, mainly by the substitution of the huge wedge-shaped masses of the roofs for the roofs of two pitches which appear in Mr. Eidlitz's original drawings, and by lowering and subduing the flanking towers of the central masses, North and South, so as to relieve the huge wedges without conflicting with them. Only the fronts of the courts were left, with the interiors, for the revising architects to carry out in their own way, and these court fronts are of Mr. Eidlitz's own designing, although, as one can see, equally with the street fronts, they got the benefit of Richardson's unquestionable improvement in the treatment of the roofs. The plain unbroken expanse of the arcaded wall sufficiently shows the refusal of the architect to "compromise" or "palter" with what he regarded as the irredeemable folly of the mixed Roman construction of the substructure, while the dormers are all the richer and the more effective for the plainness of the wall from which they rise, a plainness which amounts to baldness, but came in large part from the architect's dislike of what he called "wasting money in carving granite."



THE CAPITOL—THE ASSEMBLY CHAMBER, LOOKING WEST (1878).
Albany, New York. Leopold Eidlitz, Architect.

It is true that, in his own design, he had proposed to relieve this plainness by polishing a certain portion of the granite face and relieving the polished surface with incised arabesques, in which, had it been permitted to him thus to exhibit it, his talent for the origination or

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"appropriation of apt detail" would undoubetdly have shone. It is equally true, though not very obvious that his "apt appropriation" is evinced in the design of the rich dormers which relieve and punctuate the plainnes of the wall below. For, as the architect pointed out, the motive of these dormers is derived from the huge rich triple dormers in the flank of St. Stephen's at Vienna. In truth, the derivation needed pointing out, to so different a result are the modern derivatives developed. Sensitive observers have been known to prefer the court-fronts, with all their unreconciled contradictions, to the street fronts of the Capitol; and they will at least be agreed to be impressive and interesting works.

It were not a very hazardous contention that 'the noblest offspring" of the Gothic revival in this country, at least in secular work, was "its last." If so, the credit is chiefly due to Leopold Eidlitz. The building is not an architectural whole, and never after it was begun and committed, could have been. It was aborted beforehand, and it has been grievously marred since. But it includes about the most interesting examples in the United States of free and rational architecture, of the architecture of fact and reality, of the architecture of the future if architecture with us is to have a future. If so, that is because Eidlitz laid a fearless hand on the ark of the traditional architectural covenant, appalling even his own colleagues by the boldness with which he followed his convictions. It is to this boldness that we owe Richardson's Senate Chamber and Court of Appeals, as well as Eidlitz's own work, herewith illustrated.

With the demolition of the vaulted ceiling after it had stood for ten years, and the erection of its morally and architecturally discredited successor, the general conception of the Assembly Chamber, perhaps the noblest monument of the Gothic revival in America, became almost unintelligible, without the aid of the illustrations herewith presented of what it was to show how noble a conception it was and how artistically carried out in detail. "What a great thing to have been done in this country," I remember John Hay saying, as he stood under the keystone of the central domed vault in the first year of its existence. Even before that demolition the so-called Golden Corridor had been ruthlessly demolished to make more committee-rooms and that corridor was the most successful illustration in the building, or elsewhere of that union of Gothic architecture and Saracenic decoration in which the architect and decorator so fervently believed. Nobody who remembers it will deny or belittle its success. A corridor of the impressive length of 140 feet, divided into seven square bays of 20, it was purposely kept to the utmost simplicity in form that it might most effectively exhibit the utmost resplendence in color, with its walls a trellis of gold and yellow on a ground of red, its ceiling a diaper of blue, red and umber on a ground of gold. The "Assembly Parlor" was also a success in polychromatic decoration, until it occurred to somebody to vandalize it by substituting a "tint" of terra cotta for the carmine of the walls below the prismatic frieze of white, blue and gold. Richardson suffered also, though posthumously, insomuch that his fine conception of the Western staircase is burlesqued by the absurd capitals subsequently introduced, and his fine conception of the Library by the tawdry and commonplace painted decoration.

But there was no question of the success of the North Centre with the architectural profession or the public when it was at last thrown open for the meeting of the legislature of 1879. No architect in this country has had a more triumphant hour than its designer, as he stood, at the reception the evening before the meeting, under one of the vaults of the Assembly Chamber, at the receipt of congratulations. He subsequently and characteristically took refuge from congratulation in sardonics: "Yes, I think it was a success. I met Blank there (a feebly aesthetic architect, particularly antipathetic to him) after a pleasant separation of fifteen years, and he looked very miserable."

During the last few months, as you may conceive, the preparations for that

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famous opening had absorbed the attention of everybody concerned. The Chairman of the Commission and the Advisory Board frequently took the night boat up the Hudson to go over the work in the morning, Eidlitz laden with a huge roll of working drawings which he would not trust out of his sight. It was more than once my privilege to be one of the excursionists. Mr. J. Q. A. Ward had been invited to do friezes between



THE CAPITOL—ROOM DESIGNED FOR THE COURT OF APPEALS (1878).
Albany, New York. Leopold Eidlitz, Architect.

the two ranges of windows in the Assembly Chamber to complement Hunt's allegorical frescoes in the lunettes above the upper range. The frieze, for some now forgotten reason, never materialized. But Mr. Ward, writing to confirm my recollection that he went up to consider it with reference to its site, says: "There was never so much wit and humor and science and art on that boat before or since." Verily, those were good nights aboard that North River steamer. There was Richardson, with his headlong precipitate enthusiastic discourse, suddenly brought up, at a crisis of the rhapsody, with a proposition from Eidlitz, which, to impose itself as axiomatic needed but to be stated. There was Olmsted, interjecting at critical points a mild Socratic inquiry always of high pertinence, the point or edge of which went unfelt and unperceived, for the most part, by the heated disputants. There was Dorsheimer, hovering on the circumference of the discussion like a genial chorus, though of Teutonic rather than Hellenic suggestion, and occasionally breaking in with some explicit praise of the "lucid German intellect" as exemplified by Eidlitz. "Noctes coenaque deum," as nights if not suppers go in this imperfect sphere. And, when Albany was reached, there in that autumn

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of 1878, was William Morris Hunt, in an improvised studio in the unfinished Capitol, working away at his unfinished allegories, and solacing his leisure with extremely pointed discourse. For he was a famous talker, and volumes were made by admiring disciples and discipulae in Boston of his "Talks on Art." Eidlitz and he took to each other at once, the architect describing the painter as "not only an artist, but a philosopher," which was his maximum of praise, the painter ascribing to the architect, "a great brain and a great heart." I happened to be one of the little party which assembled on the temporary bridge thrown from one lun-



THE CAPITOL—THE "GOLDEN CORRIDOR" (1878).
Albany, New York. Leopold Eidlitz, Architect.

ette to another, of the Assembly Chamber, when the black and white cartoons of the "The Discoverer" and "The Flight of Night" were, by a magic lantern arrangement of glass slides and oxyhydrogen light, shown in the places

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"THE DISCOVERER." SKETCH OF MURAL PICTURE BY WM. MORRIS HUNT. IN THE ASSEMBLY CHAMBER, THE CAPITOL, ALBANY, N. Y.

they were meant to adorn. Being painted directly on the stonework, they shared the fate of the vaulting when it was ordered to demolition. "The Discoverer" hardly exists, perhaps, except in the photograph taken on that occasion from the cartoon; the "Flight of Night" only in the group of the "Horses of Morning." These, indeed, are familiar to the frequenters of the artistic plaster shops. The group was modeled by Hunt as a study, for he had originally destined himself to sculpture and was serving his apprenticeship at Düsseldorf therein when admiration for Couture drew him to Paris and pigment. Indeed, neither picture loses much for being reduced to its elements of design, for the color in neither was much of an additional allurement; nor this picture by being reduced to the group plastically presented, seeing that the residue, sleeping mother and child in the dusk of the background, was pretty clearly padding. But the equine group has happily been preserved. It is legendarily said that Guido's "Aurora" was inspired by Ovid:

ecce vigil rutilo patefecit ab ortu
Purpureos Aurora fores, et plena rosarum,
Atria—

and so forth. For that matter, it would be fairly safe to say that the mythology of all the painters and sculptors of the Renaissance was derived from the "Metamorphoses." But Hunt's conception of the "Flight of Night" can by no means have come from those smooth and luscious hexameters, rather from the vernacular version of Tennyson:

and that wild team
Which love thee, yearning for thy yoke, arise,
And shake the darkness from their loosened manes,
And beat the darkness into flakes of fire.

But it will at any rate be admitted that the effort of the Commission, fifteen years before the Chicago Fair and twenty years before the Library of Congress, to get the best that was to be had in pictorial and sculptural decoration is worthy of grateful memory, and should have protected them from the attack of an Albanian sculptor that they "cared nothing for art" because they did not see their way to paying him twice over for a replica of a portrait statue for which he had already been paid in Washington.

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Consider that Mr. Eidlitz's work in that North Centre included not only the Assembly Chamber, the focus and cynosure of the whole display, but also the Assembly staircase, the room intended for the Court of Appeals, but temporar-

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"THE FLIGHT OF NIGHT." SKETCH MODELED IN CLAY BY WM. MORRIS HUNT FOR A MURAL PICTURE IN THE ASSEMBLY CHAMBER, THE CAPITOL, ALBANY, N. Y.

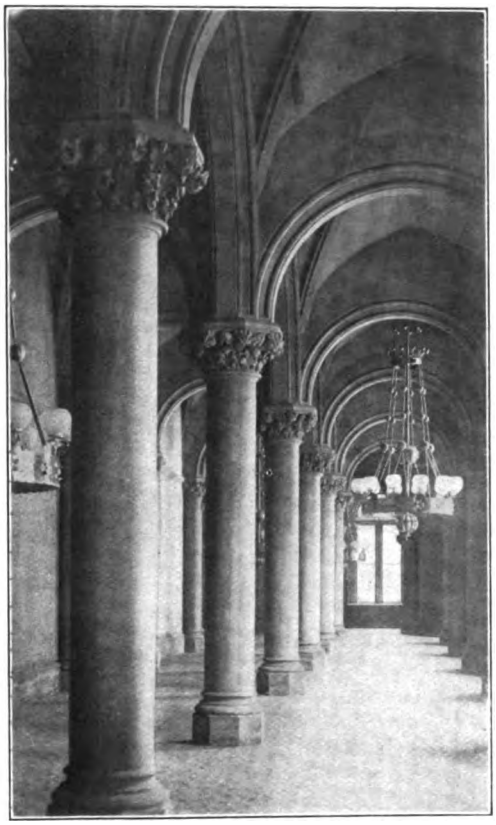
ily fitted for the occupancy of the Senate until its own chamber, designed by Richardson, should be ready, and the so-called golden corridor. Consider how elaborated and how unmistakably individual the design of all these things, and that the designer was also decorator, excepting of the two mural pictures. Consider that the architect was concurrently designing the exterior and interior of the addition to the Court House in City Hall Park, and architects will admit that that was a wonderful year's work for one man to do. And of how high a quality the work is, and how little it stands in need of allowance for the pressure under which it was done! How can anybody even now view what is left of it without perceiving how strenuous, how serious, how skilful and how noble it is, and without experiencing an impulse to take off his hat? The Senate corridor was done two years later, the Senate staircase not finished until six years later. They were designed more at leisure. Though the designs of the earlier work bears few marks of haste, the later justify their deliberation. The corridor, doubled with a row of columns in the middle, by reason of the want of abutment for a single arch, is known to all visitors to the Capitol as one of its most impressive features. And the great Senate staircase, with its doubled half-arches and its triplet of arches at the landing, is not only one of the most original and vigorous works of the Gothic revival, it is in its scheme and intention, at least, if not in the charm of handicraft and execution, one of the few modern Gothic works which one would be willing to set beside the ancient examples to show that the "revived" Gothic might not only be galvanized into a semblance of vitality, but might really "come alive."

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What Mr. Eidlitz was concurrently or almost concurrently doing in his addition to the Tweed Court House in New York was what he ought to have done in his superstructure of the Capitol at Albany, namely to improve its composition and refine and rationalize its detail so far as those objects should be attained without a violent departure in "style" or a flat contradiction in simultaneously visible terms. But the outraged professional

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sensibilities were not in fact managed, in the Court House any more than in the Capitol, though the opposition did not in the New York case, take the shape of formal remonstrance. It was, however, the open contempt for its surroundings which the interior rotunda showed that mainly excited academic opposition. His work in that rotunda has been shorn of much of its pristine force,



THE CAPITOL—SENATE CORRIDOR (1880). Albany, New York.
Leopold Eidlitz, Architect.

which was much promoted by the tri-colored brickwork, while at the same time its contradiction of its surroundings has been considerably softened, by being subjected, stonework, brickwork and all, to an equable coat of gray paint which quite nullifies the accentuation of the design by color. It seems impossible to keep the painter away from public works. Mr. Withers came to me once in much distress to know if I had no "influence" which would thwart the project of which he had heard of painting the brickwork of the Jefferson Market Court House, then just beginning to take "a plausible aspect of moderate antiquity" and to weather into mellowness. I managed to meet the official custodian of the building, who informed me that it was quite true that he was going to have the front painted, but that he was going to do it simply out of the interest and pride which he felt in the building, which he regarded as "shabby." When I asked him whether he thought he felt more interest in the appearance of the building than its architect, his answer was, "Aw, that dingy look may do for London, but it won't do for New York," and "freshened up" the poor front accordingly was.

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These works, the Albany Capitol and the New York Court House, were received and resented by the conventionally minded of the profession and the public as if they had been intended as affronts to the conventional architecture which they certainly flouted. To the best of my belief, this was not the case at all. Their author's notion of the duty of an architect, to paraphrase Cicero's of that of an historian, was simply "ne quid falsi 'facere' audeat, ne quid veri non audeat." The "boldness" and "defiance" with which he was charged in adjoining what he regarded as an architecture of reason to an architecture of convention, were to him merely a following of truth and reason, and he was honestly pained and puzzled by the commotion which his efforts in that direction inspired. He had, in truth, a naiveté of intellectual integrity. He no more meant to be defiant in these things than to be offensive to an architect with whom his relations were quite friendly, and who had given a "reception" to inaugurate his latest work, when he said to him: "Asterisk, why do you invite people to go and look at that ridiculous building?" Standing in the rotunda of the Court House one day, when his own vari-colored brick arches and columns had been inserted between the cast-iron

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panels of the older work, he said, "Is it possible for anybody to fail to see that this, pointing to the new work, "performs a function, and that that," pointing to the old, "does not?" A "Q. E. D." was the aim of his every architectural endeavor, what might be called a scientific solution of an artistic problem.

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After the Capitol and the Court House, the architect's remaining works, done in the early nineties. were very minor, and they were of so bald an austerity that they might be challenged as not 'architecture" at all. One was some work for the city in lunatic asylums at Ward's Island and at Central Islip, L. I., the other the reconstruction and incidental extension of the Cooper Union, which had developed structural weakness. At first sight it seems that in both works, experience had brought the aged architect to what Emerson, speaking of the old Goethe, calls "an extreme impatience of conjecture and rhetoric." But in fact, in each case, the work had to be done at the absolute minimum of cost and was thus reduced to the absolutely indispensable. The lunatic asylums on Long Island were prescribed to be built



THE CAPITOL—BASE OF SENATE STAIRCASE (1885).
Albany, New York. Leopold Eidlitz, Architect.

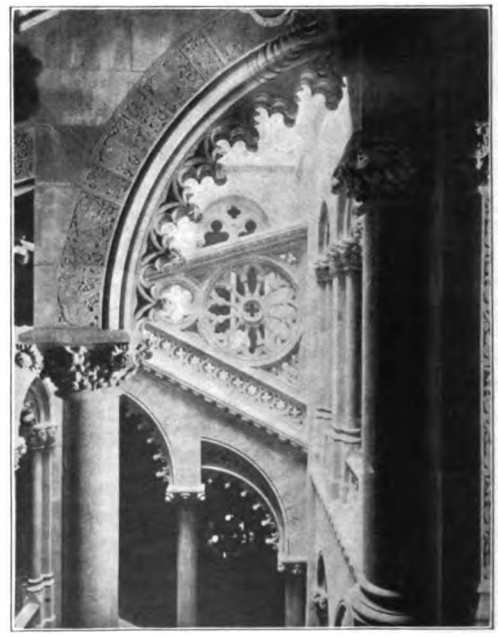
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IN THE SENATE STAIRCASE.

on the "pavilion system," whether in mere analogy to ordinary hospitals or out of some belief that lunacy was infectious and that its abodes might require to be destroyed to rid them of the "bacillus lunaticus" I do not know. At any rate, when the architect said to me of the work at Islip, "That will interest you. It is nothing but the construction," of course I hastened to visit it. Very interesting indeed I found it, being simply the irreducible minimum of "accommodation" in common brick and yellow pine. A panel of terra cotta on the administrative building is the only ornament I recall. But the work is immensely impressive by very dint of its austerity. One of the dining halls is merely a four hipped steep roof standing on the ground, or with a wall no more than man-high.

Nearly half a century before the architect had devised and built a structure essentially similar as an impromptu dining room on the Bloomingdale Road in which Fernando Wood, then Mayor of New York, might give an official luncheon to the Prince of Wales, then incognito as "Baron Renfrew," now the aging Edward VII. But the earlier, a nine days' wonder to the New York of 1860, was elaborated with much moulding and copiously decorated with much jig sawyery and pigment. The later was the absolute "bones," even the pine timbers, left simply oiled, not such as in size and shape and spacing as an architect would have chosen, but merely the "stock sizes" the market afforded at the cheapest rate. A mere piece of carpentry, you would say. Is it an example of architecture at all, with this rigid restriction of it to the full necessities of the case? Certainly not a piece of architecture in the Ruskinian sense in which architecture is "the addition of unnecessary features." But yet the mere lay out is such that the spectator cannot help seeing that it was not devised by the common carpenter, nor saying to himself "an architect has been here." And the question recurs with equal urgency about the additions to the Cooper Union. The second story of segmental arches, substituted for a pilastered colonnade which had broken down, is clearly "architecture," and a dignified range of openings. But those strange, uncouth erections on the roof are questionable, are puzzling until you come to perceive, or to be told, that it was merely a question of making three rows of drafting rooms with the



AT THE TOP OF THE SENATE STAIRCASE.

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utmost advantage that could be taken of the North light. And the basement, that Hall which is the civic forum of Manhattan, those absolutely plain cast-iron columns and those absolutely plain granite arches? You perceive that they are the mere underpinning of a precarious superstructure. You cannot help finding them impressive. Even while you question whether they are architecture, you perceive that they are as much beyond the reach of the common stonemason as that dining hall at Islip of the common carpenter. Well, then, you might conclude, the work of an engineer, an artistic engineer. There the designer would have been with you. "Artistic engineering," he would have said, "Why, that is architecture."

There was a reminiscence of that reconstruction of the Cooper Union in which the architect delighted as showing that for once he had met an owner who abounded beyond the architect in the architect's own sense. The owner, and payer, was his old friend, Edward Cooper, who had been educated as an engineer. There were in the construction two sets of loads for which the architect had devised but one set of iron columns. The owner, going over the drawings, detected and pointed out that the supports were not proportional to the loads. The architect responded that that was quite true, but that the single form of column was quite equal to the heavier load, that the incongruity was not manifest, and that the metal that might be saved by using two castings was not equal in value to the cost of the additional casting. But the precise mind of the owner would not put up with the incongruity. He insisted that the supports should be made proportional to the loads, and proportional they were accordingly made, at his expense. Now, was that insistence of Mr. Cooper's "scientific" or was it "artistic?" Here is another question for the Gnostaisthetikal Debating Society.

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Mr. Eidlitz had eminently the mathematical mind. Of the proposition that the angles of a triangle equal two right angles, he said, "I don't need the demonstration. I see it." Which recalls Mr. Pollock's anecdote of Professor Clifford when the less mathematically gifted undergraduates used to take his mathematical troubles to the more gifted. "I was always struck," says the biographer. "with the fact that he did not seem to be following a course of reasoning so much as describing what he saw." This was very notable in Mr. Eidlitz. Every architectural problem he tried to resolve into a question of mechanics. I have known one or two other men who had this same way of regarding architecture, but never one who approached him in power of exposition. Talking always with a pencil in hand, what he saw he often wonderfully made you succeed in seeing too. Although he always maintained that a practising architect could not be a professor of architecture, he would have made an admirable professor of it himself, of his kind of architecture, that is, the architecture of reality and reason, not of the architecture of tradition and convention. And his wit, which was a delight to his friends, was often but a condensed and vivid statement of the facts of the case. As when, after an elaborate dissection of a scheme, presented in an elaborate perspective, for an exposition building, he wound up: "So that you see this whole project ultimately rests upon Blank's ignorance of the mechanical properties of an arch." And again, at the end of a similar analysis: "That is the mechanical objection. The aesthetic objection is founded upon the mechanical, and is simple—if a thing is weak it will look weak." An architect of this kind, invoked to do over the work of an architect of the other kind, regarded a suggestion of compromise and mediation as he would have regarded an attempt to compromise the proposition that twice two are four with the proposition that they are six by a working agreement that they make five.

Doubtless there is danger in this attempt to attain scientific certainty in artistic matters, as Clarendon speaks of the engine "too mathematically conceived," of Chillingworth. Doubtless, the reader will say, and the writer will have to agree, he stretched this insistence further

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than it would fairly go. As naturally, being first of all an artist, he did things which he could not logically defend, as for example, those pinnacles at the angles of the tower of the Dry Dock Bank, introduced again in the St. George's clergy house, which are so evidently structurally meaningless, but these things he never attempted to defend further than by saying, "it would have been hard to treat otherwise." And really it was astonishing how many matters which commonly pass as matters of feeling he managed to bring within the reign of law and the province of reason.

If he could have written as well as he talked, he would be recognized as a leading architectural authority. But one art is enough for one man to master. Readers of the Architectural Record are aware, from the articles that have appeared in it from his pen on "The Vicissitudes of Architecture" and "Fashion in Architecture," that he could express himself with point even on paper. But it takes an earnest reader to attack his "Nature and Function of Art," published in 1881. One of its reviewers remarked that the author "should have had a literary man," a comment the justice of which I am freer to acknowledge because I was myself such "literary man" as there was in the case. But, presented with however little of factitious attractiveness, the ideas made their way by their own force to the readers they were meant for. They attracted the notice of Professor Aitchison, and it was, doubtless, due to his conviction of the importance of the book that it obtained for the author an honorary membership in the Royal Institute of British Architects. Another little book of his, of much less pretention, had rather more vogue. This was "Big Wages and How to Earn Them," a criticism upon the methods and aims of the trades unions, from the points of view of political economy, industrial efficiency and individual opportunity, which was published anonymously by the Harpers about twenty years ago.

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It was Eidlitz's saying: "American architecture is the art of covering one thing with another thing to imitate a third thing which, if genuine, would not be desirable." It was that of his contemporary and frequent competitor, James Renwick, that "the business of an American architect is to build something that will stand and be fairly presentable for about thirty years." Obviously working in the spirit of the second saying tends to make the first come true. But Eidlitz planned and built for a secular duration. It is a melancholy reflection that nevertheless he survived more than half of his own work, more than half in bulk and in value, and that of some of the best of it it has been impossible to find any memorial for the purpose of this study. There is, one hopes, enough of it remaining to be stimulating and exemplary to students of a younger generation, of whom it was his own hope that some would "see what he meant." But for a knowledge of him one has largely to fall back upon the personal recollections of his friends. "The most striking individuality I ever met," said Fred Law Olmsted, who had an eye for character among other things. And after one of the discussions, in the collaboration of the Capitol, in which Eidlitz had eminently displayed his power of insight and of exposition, Richardson exclaimed, in his impetuous way, "I never met a man who had architecture so completely at his fingers 'ends." And again, in a still higher flight of enthusiasm, "Architect or not architect, the ablest man I ever knew." The senior partner on his side said "Richardson has far more copiousness of invention than I." To those who really knew the architect now departed, it will seem well within bounds to say that his was the clearest and most vigorous mind that in his day and in this country was applied to the practice of architecture.

Montgomery Schuyler.

NOTE. Mr. Russell Sturgis writes me that I have certainly been misinformed in assigning in the October number of the Architectural Record, a later date to the Continental Bank in Nassau Street than to the American Exchange Bank in Broadway. The former was complete while the latter was still under construction. Mr. Sturgis was in New York in those years and I was not, and he is of course in the right. The date of the Continental Bank may safely be put down as 1856.—M. S.

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Architects or Brokers

To the Editor of the Architectural Record:

The "Western Architect," commenting on an article in the Architectural Record, which appears to demonstrate that not John McComb, the architect of record of the New York City Hall, but Joseph F. Mangin, was the real designer of that edifice, makes some suggestive observations. "One hundred years from now," it says, "when they talk about the designers of certain buildings, it will take this same kind of investigation to prove that the architect credited with the work was not the designer, because his name alone was on the plans," and adds "we, who know a great many things that are not published * * * would like to do the brass-plate act very often on our travels through the vale of architectural mendacity."

All of which, like the cabled rumor of Mark Twain's death, according to the cabled deprecation of that humorist, is "grossly exaggerated." Doubtless, the great majority of architects do the work they pretend to do. Still, it were desirable that there should not be five per cent. or one per cent. of basis for the censure. A distinguished American architect, lately deceased, concerning whose own authorship of the work that went out with his office-stamp upon it there never was any question, was hugely disgusted whenever it appeared that there was such a question about the work that bore the office-stamp of any one of his contemporaries and competitors. "Yes," he remarked of a rather exceptionally good piece of work emanating from an office in which good work was not the rule, "that is weak, but not infamous. It does not show the same nasty mind as the bulk of his work. He had a better draughtsman that year than usual." But when it seemed to be demonstrated that some architect confined his attention to getting the jobs and handed them over to some underling to do, he exclaimed in disgust: "Are we architects or are we brokers?"

This architect used to say that the only way of finding out whether an architect did his own work or had it done was to watch it from year to year, and note the differences. But, to adopt the locution of the "Western Architect," "we, who know a great many things that are not published" know that even this test is not final, that a work may go on for a decade, even for a generation, under one man's name, which is really done by another whose name is not known out of the office in which he works, or out of some strictly limited social and artistic circle. In England it is held to be "bad form" for an employed draughtsman to claim his own work, even among his own acquaintances. The theory, promulgated by employing architects, is that not only the work of the employed, but the reputation of it, is an asset of the office and not of the employed individual. So Charles Reade, when once reproached by an "anonymuncule" or a "pseudonymuncule," for stealing a Frenchman's brains, vehemently retorted that he did not steal them, but honestly paid for them and had bought permission to use a plot, scene, or incident, or whatever it may have been. Whereto Anthony Trollope retorted, with justice, that Charles had missed the point, that the gravamen of the charge "was not that of taking another man's property, but of passing off as his own creation that which he did not himself create." That is precisely the point. The memory of McComb would not be vindicated if he had produced, as possibly he might have produced, a quit-claim receipt from Mangin, covering all Mangin's right, title and interest to the plans for the City Hall.

As to Charles Reade, he might have said of himself, as Johnson said of Dryden, that "his known wealth was so great that he might borrow without impeaching his credit." And that is, unfortunately or fortunately, the case with a considerable proportion of the architects who put their names to work that they did not do. They could have done

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it better, or at least as well. But they were engrossed by another job. Or they were hunting another job. "Peradventure they were on a journey." Europe becomes very attractive when the job is secured. The loss, in these cases, is ours:—

"Ah, but the artist that was gone."

How desirable, if possible, some regulation whereby an architect should be prevented from taking more work than he can personally attend to and really do.

It is "commercialism," evidently enough, that is at the bottom of the defection of this kind of architect from his appointed mission of design, the desire to have more to do than he can do himself. Every architect who is an artist knows when he is yielding to this temptation, knows when he is taking more work than he can do, knows that he ought to be ashamed of himself. But also, of course, there is always the hustler, the "artchitect," the proprietor of an officeful of draughtsmen whose work he can neither do nor really judge, and who aspires to the status of an artist because he needs that reputation in his business as a hustler, who has facilities for getting jobs but none for doing them. Morally he is perhaps above the perverted artist, knowing no better. Artistically he is above nobody, being an aesthetical "chump." Still he is exasperating. To have him affix his office imprint to work of which he does not know whether it is good or bad is bad enough. But to have him look you in the face and tell you that he personally did a thing which you know him to have been personally incapable of doing, when the thing has turned out to be a success, and when you may know the thing to have been done by one of his draftsman, or by his artistic partner—that is not only irritating but infuriating. When he goes these lengths, he sinks, even morally, below the perverted artist who might have done the thing in question, only he didn't. Then it is that one yearns to "do the brass-plate act," that one longs for some exposure of the "chump" who is not commercialized only because he was born exclusively commercial. But it cannot be expected that the artist shall often secure such a posthumous revenge upon the chump as it appears that Mangin has in your pages secured upon McComb.

VINDEX.

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Our National Style of Architecture Will Be Established on Truth Not Tradition

"You show us, Rome was glorious, not profuse,
And Pompous buildings once were things of use.
Yet shall, my lord, your just, your noble rules,
Fill half the land with imitating fools;
Who random drawings from your sheets shall take,
And of one beauty many blunders make;
Load some vain church with old theatric state,
Turn arcs of triumph to a garden gate."
—Pope.

In the "Architectural Record" of November, 1907, appeared an article questioning the value of the training obtained by the American student in the Ecole des Beaux Arts. This was received, by the advocates of all things French, with violent protestations of disapproval. "The article should not have been allowed to be published. The writer was an ingrate, a traitor, and, *above all things, a crank,*" to attack so sacred an institution, and the only question was, Who should be first to have the honor of upholding the faith. This was followed by a period of thoughtful silence.

Out of the silence, which was beginning to become oppressive, there did come at last, however, the voice of a champion. With apologies to the reader for the diversion, it seems proper that some reference be made to this most amiable and courteous contemporary. He saw in the architecture of America a resemblance to the bulb of a tulip, which much to his regret, in his busy life in Philadelphia, he had forgotten to put in the shade. He tells us that there are pupils in the Ecole des Beaux-Arts whose "object is not to obtain the Prix de Rome, but to become more proficient in their profession," although this is the first time that it has been suggested that the two objects were incompatible.

When, with much pathos, he reminds us that the architecture that housed the University of Virginia in a caricature of the Pantheon of Rome, transplanted a grotesque effigy of the Maison Carrée to Richmond, Va., and produced the attenuated columns of the Colony Club of New York City, has been killed, out of respect for his sorrow only, do we refrain from expressing the great joy with which we receive the good news.

He regrets that the writer of the November article should have postponed his visit to the Ecole des Beaux-Arts until after he had acquired a habit of thought, and calls upon us to believe that previous training and study rendered him more liable to be tricked and fooled by his youthful companions of the atelier.

To return to the November article. No remedy was offered for the evils which were suggested, as it seemed necessary to demonstrate the existence of these evils before this could be done with propriety. To those who were so foolish as to suppose that the writer's object was to undervalue the great advantage to be obtained by a careful study of the monuments and museums of the Old World, any reply would seem useless; but to these it must be repeated that the question under discussion is not the French nation as a whole, or any particular professor of architecture, or any school, or college. but the influence of the French school on American architecture as exemplified by the works of the advocates of this teaching in America alone. Full credit is given to the French school for what it has done for us in the past. The highest tribute is paid to the professors of the school. A careful study of the "Eléments et Théorie de L'Architecture," by M. Guadet, could only produce the most profound respect and admiration for him and for the principles which he upheld. Proud, indeed, would be the architect who could say that he had always followed his teaching. Those who admire him are often shocked on being called upon to believe

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that this great teacher would uphold, as illustrative of his principles, some of the absurdities which are perpetrated in his name, and are offered as embodiments of his theories. If the teachings of the Ecole des Beaux-Arts were confined to the principles so cleverly set down by M. Guadet there would be little the ground of criticism.

In the November article the attention of the reader was specially called to plan composition, and the methods of indication employed in the Ecole des Beaux-Arts as applied to the plan. This was not because the influence was supposed to stop there, but the principles then under discussion could be as well illustrated by their application to a plan as to an elevation. It was thought best to avoid, at that time, discussion on the relative merits of the different styles of architecture, which otherwise might have arisen. Besides, this article was addressed to the profession, who understand that the most important part of an architectural problem is the plan. This is not so readily appreciated by the layman. Any influence which does not effect the outward appearance is of little interest to him. Therefore, before the public will be aroused to the fact that we are importing a commodity without considering the consequences it will be necessary to show:

That the watch-word of the Ecole des Beaux Arts is precedent.

That false indication, false judgment, and false design are more frequently found in the façade than in the plan.

That there is a most distinct tendency to restrict the development of architecture to certain lines and traditions, which, having filled their places in the history of architecture, are no longer of any value to us except as history.

That the Renaissance of Italy and France is the foundation of their theories in composition, and their inspiration in design.

That the most successful, from their standpoint, are those who have treated with most respect the teachings of the founders of the Renaissance.

As it has been stated before, if these evils were entirely confined to the work of the school-boy, it would be a matter of no interest to anyone, but their system of presentation and judgment, taken with an intense admiration for the French Renaissance, good and bad, is having a greater influence npon the architecture of America than the public realize.

Would it not be wise to stop and consider? What were the underlying principles of the Renaissance and by whom, and under what circumstances, were they established? If these form the basis of the teachings of the Ecole des Beaux Arts, are we right in taking them without question, simply because the Ecole des Beaux-Arts is an old and well-established school of art? Might it not occur to us that the advocates of this teaching are calling upon us to do now, what they did in the past. Which was to take the word of their predecessors without question, and give to precedent the dignity of an established artistic principle.

Established by whom might well be asked. Why give to these numberless predecessors, simply because they have preceded us, a privilege which we deny ourselves, if their work plainly shows that they were not guided by any great principle of art, but by the ever changing creed and fashion. It would not have occurred to our grandfathers to suggest that perhaps some of the episodes of the Old Testament were figures of speech, but how many of the present generation now insist upon literal interpretation being put on these?

Should we not question any theory which does not seem to be founded on reason and truth, though handed down to us by those for whom we have the greatest respect? That a professor holding a chair in a great university clings to a theory does not necessarily demonstrate that it is correct. What are the feelings of the thoughtful student, before he has been entirely subjugated, bound, and fettered by traditions, on being called upon to sit for hours listening to a learned discourse on the subject of how high to make the base-block of a balustrade on the roof of a house, in order that, the width of the projection of the cornice below being taken into consid-

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eration, the correct effect as seen from the street would be produced? How many of these have afterwards come to the conclusion that it was nonsense, and that they were being taught false architecture? What was the balustrade on the top of the roof? Was it a roof decoration simply? If so, why pretend, by using the balustrade form, that it had a practical use, which it did not have?

Or was it really placed at that point to prevent people from falling? In which case a balustrade form was permissible. But why stick the balustrade up in the air on a solid base three times its own height? Might it not suggest undue solicitude for the safety of the most casual roof walker, when it is seen that he would have to have a ten-foot ladder in order to peep over this classic protection?

We are told that behind this false and overgrown roof protection is exactly the place to put the servants' rooms, or, when the base-block, still posing as such, is so exaggerated that it is necessary to pierce it with windows, in order to light the bank directors' room, this so-called monumental effect is foolishly justified by referring to M. Guadet, who states:

"Truth is the first requirement of architecture. Every architectural untruth is inexcusable. If in some cases one of these untruths is overlooked, on account of the ingenuity and ability shown on the building, the impression given, nevertheless, is of an inferior art."

When this space behind the balustrade form is truthfully used as a roof garden, the roof dweller finds that he is unable to enjoy the view or the breezes, being surrounded by a high blank wall, with a three-foot classic balustrade on top. If he suggests that the base of the balustrade be lowered he is told that on account of the great projection of the cornice this is impossible, and that the height of the balustrade itself is decided by a rule, raised in the last fifteen years to the dignity of a tradition, which states: A balustrade, once a balustrade, is always a balustrade, and wherever it appears in the stage picture it must always be about three feet, that is, the height of its Roman protective prototype. It is perfectly permissible, according to "the teachings," however, to place this three-foot protection on the top of a ten-foot coping, or use it to decorate the top of a high garden wall. And so, if space permitted, it might be shown that this balustrade is but one of the many architectural forms that have been used for so many years without the slightest regard for their functional value, that they have degenerated into meaningless ornament.

The architects of the Renaissance, well assisted by the artisans of their time, started the work which is now being carried on by the students of the Ecole des Beaux Arts. They tortured and twisted these classic forms until their true function has been entirely lost sight of, and they are now aimlessly tossed about the fronts of our buildings with as little reason as the trimmings on a woman's hat.

The professional milliner frankly admits that fashion alone dictates when an ostrich plume shall spring from and float above a bunch of artificial grapes and bear's claws, and that this mighty but unseen power forces him, against his will at times, to cheerfully describe as beautiful a bristling feathered monster, rising out of a conglomeration of red geraniums, shoe-buckles, blue ribbons and monkey's tails artistically entwined. He will also tell you that two years away from Paris his designer loses his cunning.

The architect claims a much higher position in the realm of art than the milliner, a position which he has no right to, as long as his architectural compositions are but the assembling of meaningless forms, and he is governed by no higher principles than those which permeate the artistic atmosphere of the Rue de la Paix.

If the column is like the bear's claw and monkey's tail, but a bit trumpery, and can be used where its function as a carrier of weight is not called into play or even suggested; if a pediment, which is the truthful expression of the gable end of a hipped roof, can be used along with other rubbish as a wall decoration,

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or, rendered in metal, is the proper treatment for a transom bar; if the console, which in reality is a corbel, can be used as the voussoir of an arch, the coping-stone of a buttress, or even as a balustrade on a so-called monumental staircase—architectural composition is on no higher plane than the millinery art.

Those who explain to you the proper use of these features are perfectly sincere. They are endeavoring to help us solve a problem which they, in their experience in assembling classic fragments, have found difficult, and to fall back on a fixed rule relieves them of all responsibility and carries with it the approval of all those who use the same rule book. "Fashionable Formula in Art," or subscribe regularly to the "Latest Advices."

History of architecture shows plainly that all fixed rules and theories, not based on truth, but on precedent and fashion, have been advanced only to be questioned by those who insist that art is a thing to be understood as well as felt.

Some of the standards of beauty in the Ecole des Beaux Arts are based on drawings which have never been put to the test of actual construction. Some of the effects produced in these drawings, by the system of conventional indication, have been used for so many years that Frenchmen have forgotten that they are conventions, and consider them truthful representations of natural effects. Their shadows at 45 degrees from the left hand, for instance, are as much a component part of the composition as if they were to be cut or painted on the building. They compose these conventional shadows just as if they were permanent bits of ornamentation of well established form. In reality, these shadows may not exist at all, or, existing, change with every minute of the day.

All of this is justified on the ground that these problems are but studies in composition of forms. The question arises, if these effects do not occur in nature, are never produced in architecture and are admittedly impossible of construction, why spend years in acquiring such wonderful skill in producing the same? This sort of thing may be good training for the future drop curtain or book plate artist. Some of these shadow studies certainly compare favorably with the architectural dream pictures of the Piranesi type; but to lead the student of architecture to imagine that the standards of judgment, which he is studying with so much care, can be brought to bear on problems of actual practice, will in the future cause a sad awakening, unless from force of habit he prefers to dream on. When he sees one of his designs actually constructed, or for the first time thrown into correct perspective, he will not understand why the result is so unsatisfactory and entirely different from what he had expected. He finds the different planes will not take the places allotted to them in his scheme of values, and have assumed entirely different form and proportion to those he had so carefuly composed in his elevation. His shadows at 45 degrees have assumed other shapes; his graded washes disappear; and his snapped-up tones have lost their snap.

Certain architects, contending that an architectural design is a composition in three dimensions, have insisted that it is impossible to decide upon the merits of a design unless a perspective accompanied the plans and elevations. Whereas, those who uphold the French system of presentation are as violent in opposition. If our competitions are to be decided upon the merits of the picture presented, judged by the rules and standards of the Ecole des Beaux Arts, a perspective is unnecessary. If the building committee or the expert wish to pass on the effect of the building when built, or as near as it is possible to represent this by drawings, a perspective is absolutely necessary. For in spite of the contention of the advocates of the French system of rendering, it is impossible to judge of the merits of an architectural composition of any size without a perspective. The author of a design is himself often surprised at the effects that are produced when his build-

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ing is thrown into perspective, and makes alterations in his elevations in the light of this additional information. Therefore, how absurd it is for anyone to pretend that he can, on seeing the elevation of a building, rendered by this system of washes, decide exactly what will be the appearance of the building when constructed.

In theory the Ecole des Beaux Arts advocates the constant use of perspective in studying a design. In reality it is rarely employed, and then only after the problem has been thoroughly studied in elevation. The student knows that the composition is to be exhibited in elevation, and it is not necessary to know, and he never does, what it would look like if built. When asked why the perspective is not more used, they say simply, "it is not necessary." And this settles the question finally for their imitators in America. By their system of washes, tones, and values, they claim to be able to convey to the judges the exact position of the component parts. The distance of the different planes from each other and the picture plane, as they recede from it, is shown by the depth of the washes applied. In some of their compositions these planes are from ten feet to miles apart, and the confidence with which they undertake to compose these into one great elevation is refreshing. That they can imagine, for one moment, that the effects that they seek and do produce on these enormous drawings has any bearing whatever on the architectural merit of the design, if constructed, is incomprehensible.

By means of false atmospheric effects they pretend to compose and design the different parts of the composition, regardless of the fact, that sometimes, these parts are so far separated, that they could, under no circumstances ever be seen in conjunction.

So carefully and conscientiously have they for generations studied this system of pictorial presentation in elevation, that to them it is a real and living art. A new effect of rendering discovered, or a new method of indication invented, is hailed with delight as an addition to their traditions and a valuable contribution to the history of art as applied to architecture.

A magnificent drawing, presented by the student, supposed to represent the effect that he would produce, "God save the mark," if called upon to construct the same, is in reality a species of scene painting. Technical truth is sacrificed to an alleged artistic effect, and it is therefore valueless as a conventional representation. As these artistic effects, so highly prized, and which form the basis of judgment, cannot be produced in reality, it is therefore absolutely valueless as an architectural composition to be judged as such or studied by those who are designing for actual construction.

They do not hesitate to present plans and elevations which do not agree. They will show a monumental staircase on the elevation, which it would be impossible to construct in the space allotted to it on the plan. The space thus allotted is not decided by calculation, but by some theory of its proportion to something else. A group of statuary will be placed at a certain point on the plan, which, according to established rules, must be punctuated, emphasized, or decorated; but when this group of statuary comes to be represented on the elevation, if it be found that if placed there it composes badly, or blankets some feature in the rear, this group of statuary will be shown to the right or left. They will omit a feature on the elevation, which is made much of on the plan, it being considered necessary to emphasize an axis, produce symmetry, or one of the many artistic effects so highly prized in plan composition; whereas, to show it on the elevation would destroy the scale, effect of balance, or some equally vague quality. Still water is represented as lying on a slant, the angle of repose of water is different in different compositions, and is sometimes different in different parts of the same composition. The amount of slant that is given to the water in the fountain at the base of the cascade is a matter of the greatest importance, a matter entirely of artistic

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feeling, and can only be decided after much discussion, and final reference to the professor. Several drawings are made showing the water lying at different slants, and the professor is called upon to decide what is the most artistic slant for that particular design. This is done with confidence, but with care, giving the student the benefit of his experience, and by reference to previous Grand Prix drawings, the matter, as far as that particular design is concerned, is finally settled. In another atelier, with another professor, another angle of repose may be decided upon. So when these two compositions are exhibited side by side in the great exhibition hall, and the world is asked to come and see what will be the fashion in architecture next season, it will be seen that when the composition of the Grand Prix de Rome is under consideration, the Laws of Nature are disregarded.

The questions which the advocates of the French system of rendering are now called upon to answer are as follows:

Are these beautifully rendered elevations purely conventional presentations, to be judged by arbitrary but absolutely fixed rules?

Are all of the effects produced, purely conventional answers given to questions that might arise as to the intent of the designer?

Is the merit of the design to be judged solely upon the answers to these questions, and is the correctness of these answers always judged by fixed rules?

Is the judge influenced in his decision by the artistic language in which these answers are expressed?

If these are purely conventional presentations, without artistic value, as representing the finished building, why not adopt a more simple and direct convention; figured dimensions, the use of red lines, or an occasional section? This form of convention has been found to work perfectly for designs in engineering, civil and mechanical, and the other sciences in which conventional presentation is used. The advantage of this form of convention is, that it leaves no possible chance for misunderstanding, which is not true of the form of conventional presentation employed in the Ecole des Beaux Arts.

If, on the other hand, these drawings are not purely conventional presentation, to be judged by fixed rules of convention, but are pictorial presentations, which claim to show the effect the builder will produce, then why produce, with so much care and skill, effects in elevation, which in itself is one of the purest forms of convention, and can never be seen in nature?

If these drawings are a combination of these two forms; partly conventional, partly pictorial, by which standard are they to be judged? If by both, where is the line drawn which separates these two systems, so different in their methods?

J. Stewart Barney.

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A New Type of Bank Building

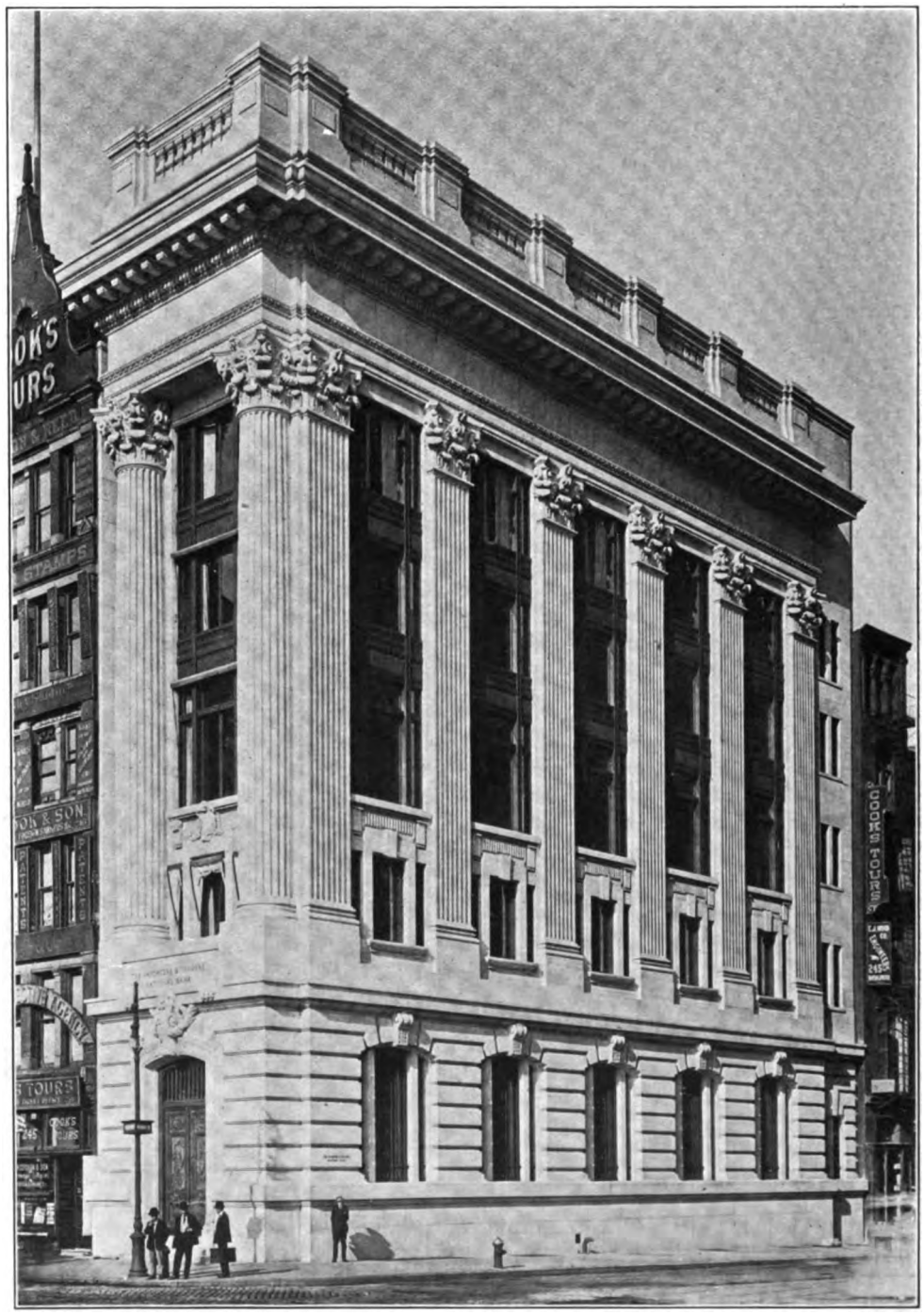
The New Importers' and Traders' National Bank

There has just been completed at the south corner of Broadway and Murray Street, in New York City, a six-story building of large proportions, that is also large in the scale of its architectural motives. The uninformed passerby must have wondered for a long time what was to be the purpose of this rather unusual structure which has much of the air of a public building, perhaps some department of the municipal government in view of its proximity to the City Hall across the park. Yet more remarkable than its general external appearance is the fact that it covers but one city lot, twenty-five feet on Broadway and one hundred on Murray street. Surely the design of this building must contain some special interest, if not for the outward form which the design has taken, then for the reasons which gave rise to building it at all. It is clearly a new type of building, resulting from some new idea of doing something, business. Business house it surely is, being the new quarters of the Importers' and Traders' National Bank of New York, one of the old banking institutions of the metropolis which has decided, after mature deliberation, that a building such as it has chosen to build here will most facilitate its business and at the same time express its position in the business community.

Of recent years it had about become an established fact that if a bank in one of our large cities desired to build itself new quarters there were open to it but two alternatives, it could either erect a one or two-story monumental building of some extent (this required invariably a generous ground area), or it could plan for itself similar accommodations in the lowest floor or floors of a towering skyscraper. The first of these alternatives is highly desirable from the standpoint of individuality and the dignity of the institution, but a heavy drain on its resources, with no promise of future return on the investment excepting only such returns as increased business would bring. The second course, while it entails an unquestionable loss of importance and dignity to the institution, the earning power of the rentable area above is not to be sneered at. There never has been any agreement as to which of these two schemes was really the more profitable, both methods finding successful solutions under a great latitude of conditions in New York, Chicago, Philadelphia and elsewhere.

Some years ago the directors of the Importers' and Traders' National Bank decided that their old building, which New Yorkers will no doubt recall occupied the site of the new building, was inadequate for its purpose and must be replaced by a more ample structure. The acquisition of adjoining lots on Broadway was then considered. It was thought impracticable to house the various departments of the bank on a lot less than fifty feet by one hundred, and even a hundred foot frontage was considered a minimum by some of the directors. After mature consideration and an exhaustive study of the problem by the president, Mr. Edward Townsend, it was decided to reject the offers of additional frontage and to build on the site of twenty-five feet on Broadway by one hundred on the street. The traditional notion that in order to properly carry on the business of a bank it was necessary to house all its employees in one vast room was thrown to the winds and the different departments were placed on separate floors and connected by abundant elevator service. In the first, second and third floors are accordingly found the departments for the transaction of the public business; the fourth floor is devoted to the corre-

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THE IMPORTERS' AND TRADERS' NATIONAL BANK.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

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spondence department; the fifth to the directors' suite, and the sixth to the future growth of the bank.

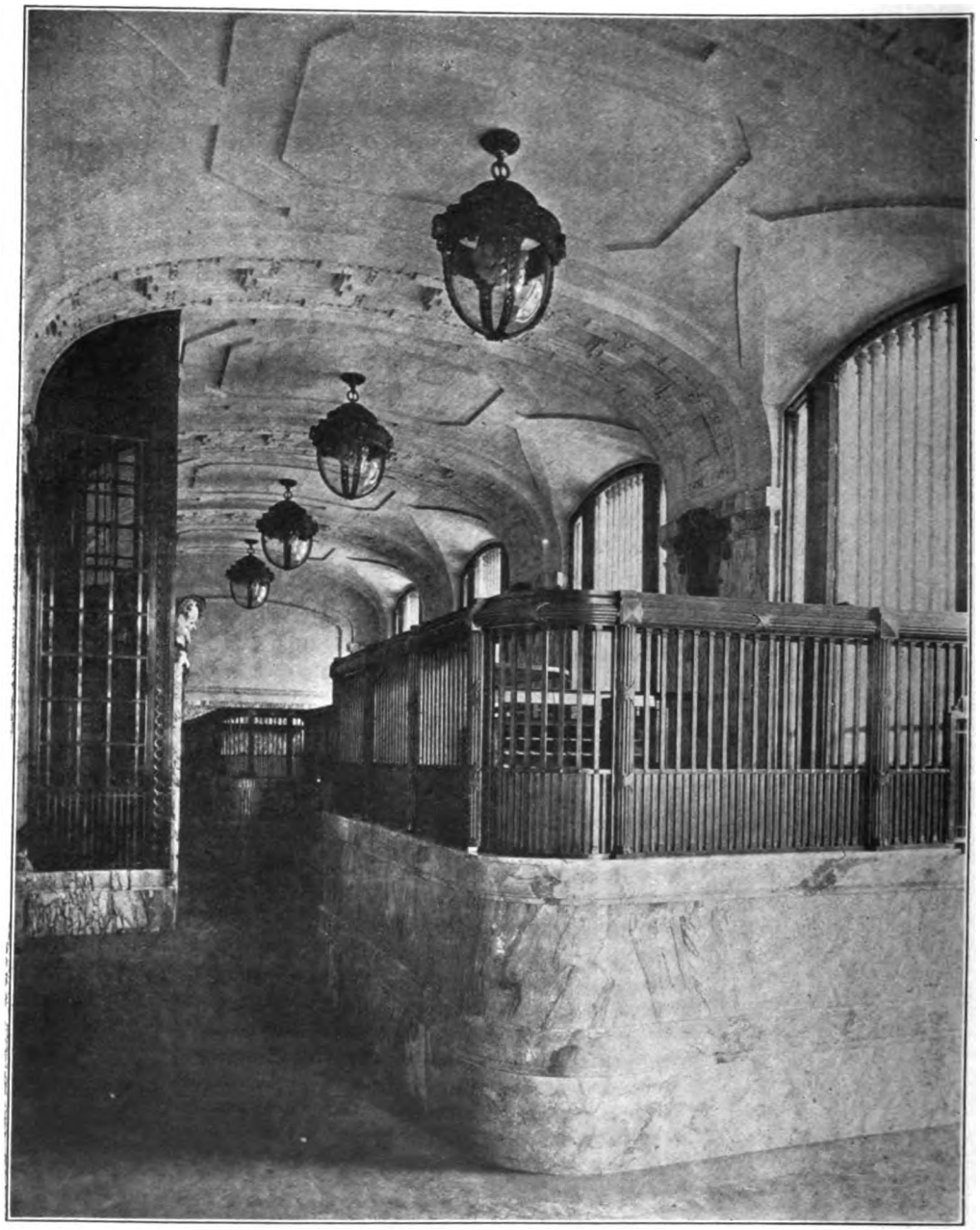
Now that the opportunity has been had to test the practical worth of the new plan, it is understood that the officers and employees are delighted with the convenience and spaceousness of their new quarters. The system of placing the departments of receiving and note teller, paying teller and discounts and loans on three separate floors greatly simplifies the conduct of business in each of them, isolates the lines of depositors and gives a more generous allowance of floor space to each department than could be had in a plan providing one large banking room, where it is often necessary to resort to every known space-saving device to find quarters for all the employees. The difficult problem of natural lighting is also admirably solved in this plan, which permits of ample direct lateral light and abundant ventilation everywhere on all the floors.



THE IMPORTERS' AND TRADERS' NATIONAL BANK—DETAIL OF ENTRANCE.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

The rear of the building is devoted to the service, including the elevators, staircases, toilet rooms, etc. By a close study of the plan, the architect, Mr. J. H. Freedlander, has been able to obtain

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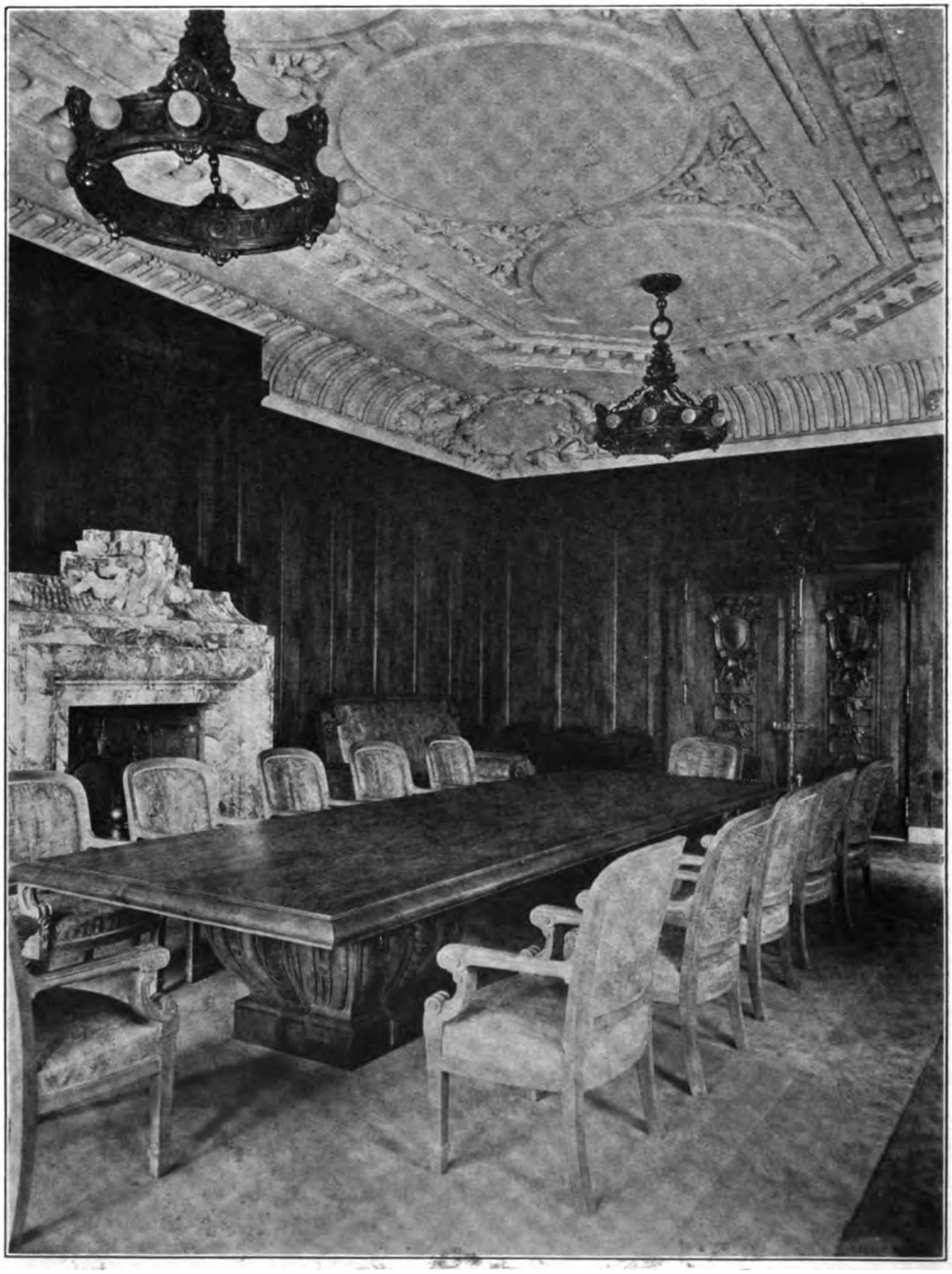
IMPORTERS' AND TRADERS' NATIONAL BANK—VIEW IN FIRST FLOOR BANKING ROOM.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

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IMPORTERS' AND TRADERS' NATIONAL BANK—OFFICERS' ROOM.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

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IMPORTERS' AND TRADERS' NATIONAL BANK—DIRECTORS' ROOM.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

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in each banking room a maximum area of 2,025 square feet, an excess of eighty per cent. of the lot area.

The construction of the bank is of steel with reinforced concrete floors and with the exception of finished floors of oak, no wood has been used.

The various banking rooms are finished in foreign and domestic marbles and Caen stone, while the directors' and officers' rooms are wainscotted in Circassian walnut and chestnut respectively.

The mechanical equipment includes every modern convenience that could possibly make of a bank a more comfortable place in which to work. It is lighted, ventilated and cleaned by electricity, and capable of being heated by an independent steam plant located in the sub-basement.

There is, however, another side to the building besides its aesthetic and architectural expression which we are too prone to regard as a mere finishing touch, a something that the architect puts into his work just before he is ready to let it go out of his hands and into those of the actual constructor. Of course, we all know and cannot get away from the fact that much in modern architecture is conventional and purely decorative. There are some features for the meaning of which we no longer have to inquire, so surely though unconsciously have they become part and parcel of the language of design. The result of using in our architecture these architecturalized forms need not necessarily result in artificiality or monotony. No doubt one could have, if desired, a Corinthian capital with its leaves in more natural positions, but if one objects to the sameness of the leaves one must object to the entire feature which is pure decoration existing nowhere except in architectural monuments and in books. On the other hand, take the column, for example, with its base and capital, that feature surely was never properly intended for pure decoration. True the Romans used it so, and the less we think of their architecture for so doing. It is reassuring to see in Mr. Freedlander's design for the bank before us an attempt to continue that interest for reality of construction which Mr. George B. Post showed in his design of the great New York Stock Exchange room on Broad Street, and which, a little later, Messrs. McKim, Mead & White expressed in their Cullum Memorial Hall at West Point and in the Knickerbocker Trust Company's building at 34th Street and Fifth Avenue, in New York City.

It is on such a course that American architecture can base its hope of salvation and "indigenous" growth as it has been expressed in recent articles in this journal. It is difficult to understand why those who profess "indigenous" architecture should find it essential to break so sharply with the past in the elements of design. Why it should be necessary for them to invent new features and to suppress anything that savors too much of having found application elsewhere under other conditions. These designers, it would seem, lay more stress on the invention of motives of detail than on a wise combination of them. The modern French school, on the other hand, is content to employ in its designs what others have previously used to a good purpose, but here one encounters an almost slavish adherence to not only features of detail, but of combinations of these features and often to the disregard of the conditions to be met. How admirable it would be and how salutary for modern architecture, for these two opposing forces are operative in architecture anywhere, if they could be brought closer together and mingled, giving each the advantages of the other and enabling both to make more rapid progress in solving the present-day problems that vex the architect and the student. But this, perhaps, is sooner said than done, and time alone will be able to bring it about through the slowly, but nevertheless surely, converging courses which the two forces are taking. The one is surely becoming less radical, while the other is becoming less conservative or more radical.

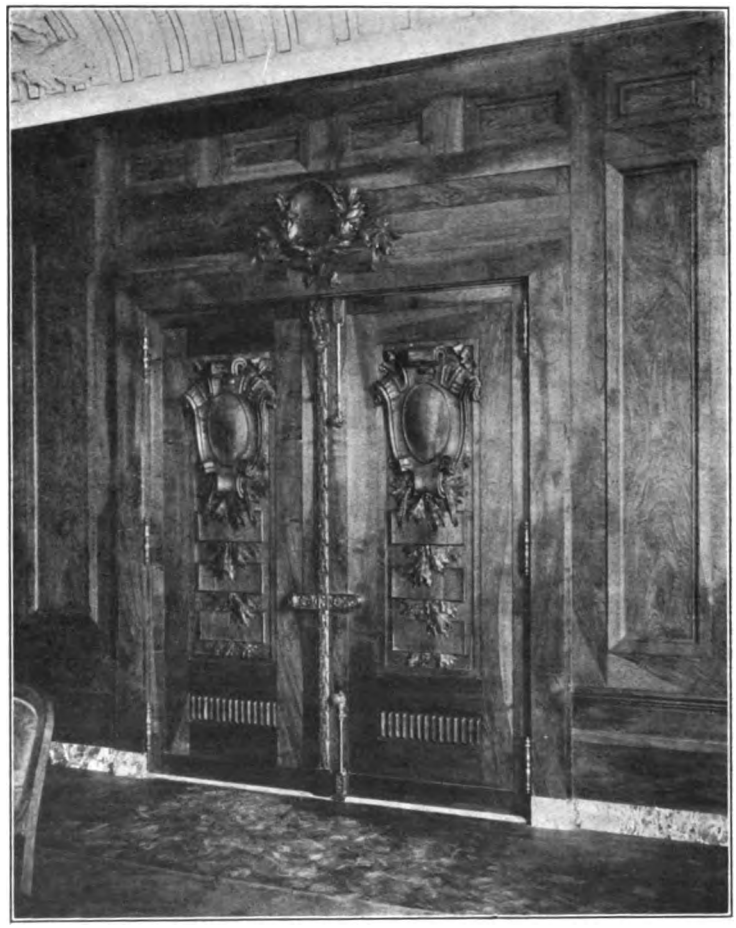
The design of the Importers' and Traders' Bank serves perhaps as an example of the latter force striving to rid itself of too much precedent, depend-

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ence and formula. The attempt has produced a design with which one cannot seriously quarrel in the main, although some of the details are open to question, aesthetically. Could the designer, for instance, give a substantial reason why he treated in stone the second-story curtain-wall, which according to the colossal order which divides it into bays, it nothing less than a part of the screen wall running up through the next three stories and frankly rendered in metal and glass? Can he satisfactorily explain the flat arches under the architrave of his order on the fifth floor? What office do they perform in the design.

On the whole, the directors of the Importers' and Traders' are to be congratulated upon their new building, which does credit to the institution and the community alike, and in the novelty of its arrangements, it points the way for other banking institutions who are now or will soon be in a position to repeat the experience of the Importers' and Traders'.

H. W. Frohne.



IMPORTERS' AND TRADERS' NATIONAL BANK—ENTRANCE DOORS IN DIRECTORS' ROOM.
Murray Street and Broadway, New York. J. H. Freedlander, Architect.
(Photo by A. Patzig.)

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The Paucity of Ideas in American Architecture

To the Editor of the Architectural Record:

They tell us that there were seven original jokes and that every alleged new joke is but a variation upon some one or several of those few originals. There certainly is a sterling lack of originality in what we are pleased to term our joke-smithing. But if there is paucity of expression there, we have it also in marked degree in our architecture and in fact in everything we do. Probably it is natural. Even in our physiognomic direction there are, after all, but few variants in the human face and those variations interlace and repeat in the different races. But for the nonce, we are considering the architectural phase of this very broad and most interesting line of speculative reasoning.

Perhaps the whole thing may be simmered down to the realization that men are more or less sheeplike and follow a leader or a beaten path instinctively and never think of doing aught else. A few years ago Richardson did some rattling good work with his clever adaptations of old Romanesque architecture. Before that there had not been very much of anything really definite in architecture since the old Colonial times and style—the latter simply the best our people could do with the classic of their forebears with the ability, the materials and the money at hand. Richardson became the vogue. Clients scrambled over one another to employ him and the other architects did their best to emulate his example, with the result that we had a surfeit of Richardsonian Romanesque badly done. Every cross-roads town had something that, while it did not look like, you could still realize was patterned after Richardson's splendid Pittsburg Court House. I have counted three hundred and eighty-seven United States Post Offices, county court houses, city halls and what-not, "cribbed" more or less coldly from that excellent model, but alas and alack, ye gods, what crude attempts most of them were!

By the way, how much better has Richardson been treated by his successors on that Court House (I mean the original one) than did he treat his predecessors in the Albany Capitol! Messrs. Palmer & Hornbostel have designed a huge tower, of which the at one time colossal tower of the Pittsburg Court House is to form but an appendage. The addition is to be vastly more important than the original building, but they have scrupulously and religiously followed the style of the master and that great tower, when completed, will apparently be an integral part of the original design and could well be attributed to Richardson. He, on the contrary, when he took hold of the Albany Building positively ignored everything that had been done before and started off on a brand-new style, adding Romanesque porches to Renaissance façades and doing all sorts of things, beautiful as they may have been in themselves, that he ought not to have done. He certainly was a great man, but the ego in him reigned supreme and he lacked that fine sense of balance, of the appreciation of the eternal fitness of things that will make a man merge his own identity into a benefit to the greater number or to some impersonal cause. The thanks of the profession are due to Messrs. Palmer and Hornbostel for the splendid lesson they have given us of the finer ethics in our practice and the real artistic appreciation of a consistent and a completed unit.

After we had gone crazy in the Richardson line, and the craze had held sway for lo, many years, and ad nauseum, the Chicago World's Fair was projected and Root and Hunt and Atwood and the other really clever fellows of the time harked back to classic forms and their variants in Renaissance and gave us a dream city that for beauty and consistency and true art has never been equaled or approached before or since that Exposition. At first, the rest of the profession rather fought shy of this example. They though it too academic and

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inelastic to be applied to their commercial buildings. But the people themselves, the plain *peepul,* went crazy over that Exposition and forgot the machinery, the good things to eat and everything else about it and remembered and now remember it only as a collection of beautiful buildings. They actually taunted the profession and pertinently asked why they could have something like that in *their* buildings. Then there swept over the country an almost tidal wave of classicism. It came with a rush and a bang, and we had a rebirth in the fullest sense of the term renaissance. But in that, too, we have shown our sheeplike proclivities. Beautiful as classic Architecture is when well done and eminently satisfying as it should be, it has been, to use the vernacular "run into the ground." Verily I dread looking at plans of any proposed building for I know exactly what the exterior is going to be. It will be one of three themes, one of the three variations upon which all else today is founded or is simply a variant. You get the same thing in a church or a city hall, in a forty-story office building, or a stable or a dog-kennel; columns that support nothing, entablatures as meaningless and where windows ought to be, and a dome cocked on end and there you have it. Assuredly even the most exotic and frantic efforts made by some poor brother in the direction of the Art Nouveau are a relief.

It surely is time for another change. We might continue to adhere to classic forms for State capitols or some such formal and monumental structures, but in Heaven's name let us try and do something else in the rank and file of our ordinary construction. The most sensible movement is toward a frank acknowledgment of the structural necessities of each case. The honest construction of a steel framed commercial Colossus, and then decorating parts as they present themselves as best and most artistically as you may. Sullivan, of Chicago, and the youngsters who have followed in his wake, are, it seems to me, on the right track. Though, of course, as in every departure from a beaten track, religious or otherwise, men with their new found freedom and superabundant zeal feel that they must run away from everything that has been done, they have to be positively and totally original and sin a bit by excessive protestantism. They simply cannot do anything as other people do or as it has been done before. The result is that some of their work is, to say the least, freakish in the extreme, strained and reminds one of the ultra-French Art Nouveau that is inalienably connected in my mind with poor but excessive absinthe and cheap cigarettes. But this new school will tame down bye and bye. It shows signs of that taming down already, and we may hope, if not for an American style, at least for something that will be truthful, that serves our purposes, that is susceptible to endless variations, and that will satisfy our cravings for artistic variety.

One of the greatest drawbacks to anything like real progress in the development of a national art is our system of competitions. Of late, the excellent move has been made of placing these under the control of a professional advisor. In fact, we run in ruts in that as well as anything else. It has gotten so that one of three or four men is bound to be the advisor or judge in every competition. A wise move say I, but one that has its disadvantages, too. For everyone of those three or four men is a dyed-in-the-wool school man, with Renaissance and classicism, etc., bulging from every pocket and tied to his coat tails. The competing architects know this, and the result is that competitions are not fair exhibits of how each man would solve the problem presented, but rather a guess as to what each man thinks will hit the propensities and perjudices of the aforesaid judge. No competitor dare show anything out of the hackneyed and beaten line. He knows that if he has not the regulation colonnade and rusticated basement, et al., his drawings are going to be "thrun out" incontinently. We play not to the gallery, but to the judge and to the latter's unprogressiveness, his love of the regular, the dear precedents, is attributable the lack of much real advance, and the absolute fossilization of our art architectural.

F. W. Fitzpatrick.

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NOTES & COMMENTS

MUST A SITE BE LAND?

When is a site not a site is the question recently brought before an English justice, and the decision is one that must be of interest to a great many persons and communities. The late proprietor of the Birmingham Daily Post, John Feeney, bequeathed to the corporation of his city £50,000 for the erection of a new picture gallery "on a site provided by the Corporation." Splendid municipal buildings were projected on Edmund Street, and the question arose whether, if the basement, ground floor and part of the first floor were used for offices, the balance of the structure—or so much of it as might be needed—might not be used for the gallery under the terms of this bequest. The court decided that Mr. Feeney's purpose was to restrict his legacy to the cost of construction as distinguished from site, and therefore that the word site should be interpreted in this connection as applying to a superficial area, which may include no land or ground as properly understood. With reference to the future at least such an interpretation may well hold. If accepted, any testator who so desires can easily insert henceforth the words "separate structure" to indicate his wish for a distinct building; and if he is not particular that the structure should be used for the purpose designated and nothing else, such interpretation may facilitate the execution of his purpose.

A PAMPHLET AND A STORY

City beauty enthusiasts, once the butt of scoff and scornful ridicule by "practical" business men, are coming rapidly into their own. Witness, as one significant evidence among many, the pamphlet issued by a Western manufacturing company that has gone into the business of making a handsome public utility—an act significant in itself. The book is illustrated with views of beauty spots in cities. A portion of it, entitled "The City Beautiful," speaks of the "efforts now being exerted throughout the world to produce a fair cityhood," and concludes with these words, 'The city beautiful is no longer a dream, a mere aspiration of the idealist, but an accomplished fact, largely because of the great growth of the national impulse for civic improvement." This goes further in its statement than most of the enthusiasts themselves would have ventured; but it bears the imprint of a manufacturing concern—not of a civic association whose very proper business it is always to take such a position. By the way, a story was put in circulation last summer—no doubt by the dreadful power companies—to the effect that for a day or two the power tunnel at Niagara was absolutely closed and all the water left in the river, so that an investigation of the tunnel might be made; and that nobody—resident or visitor—knew the difference, though the volume of water that went over the Falls was being as carefully observed as ever. And the story appears to be true.

MANCHESTER'S NEW BUILDING LAW

The new building by-laws which have been under consideration by the city of Manchester, England, for two or three years, have been lately adopted by the improvements committee. A summary of them says that they provide that no new street shall be less than fourteen yards wide, an increase of two yards on the former minimum width. Main roads must be fifty feet wide instead of the previous minimum of thirty-six feet. Long rows of houses, all of one pattern, will not be sanctioned. No block in the developing sections must contain more than ten houses, nor cover a frontage of more than 100 yards. At the back of each cottage there must be an area of not less than 250 feet, an advance of 100 feet. No blind alleys will be allowed in future, and all passages must lead to main streets. The committee also made provision that staircases in all houses should be fitted with hand rails. These are the main points of the new by-laws. They will not affect houses that have already been built, but in future all plans that come before the committee for sanction will have to conform to the new regulations. On the whole they seem far advanced. The requirement of space at the back of cottages is certainly very liberal for a city so crowded as

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Manchester, and the distinction between "main" roads and other roads is an interesting recognition that has everywhere been much too long delayed.

A MEMPHIS RESOLVE

Whether or not a resolution which was recently passed at a meeting of the City Club of Memphis has influence with the City Council, toward whom it was directed, the introduction and passage of the resolution is something to note. For its purpose was to urge the Council to pay careful attention henceforth, in the extension and opening of streets, to their alignment, with a view to architectural and landscape effects. Thus the resolution gave expression, in a Southern city, to a marked development of that new spirit which has come into American life—the spirit which is no longer satisfied with the purely utilitarian and that boasts no more of economy at the sacrifice of aesthetics. It may be that the club is leading intelligent public spirit and that the Council will lag behind, but if this is true—and perhaps it isn't—it would be only a matter of to-day. The leaven is working, and the morrow of Memphis may be expected to come apace. It is notable that such a resolution was passed not by a professional club, not by architects or landscape men, and before any city beautifier had aroused the people. Citizens had had a vision and were groping to seize it. "Streets," says the resolve, "are being builded for the future and not as temporary utilities, and nothing should be permitted to mar their harmony and beauty." The taxpayers who said that are men of a new stamp.

TROUBLE FOR THE NEXT GENERATION

The disturbing suggestion has been made that it would be well for us all—architects, owners and builders—to do some worrying about the future of our reinforced concrete constructions. We boastfully claim that we build for the future in such work, that our structures are going to last forever, that they can't be burnt up, or worn out, and hardly can be blown up, that we have learned how to cheat the future by creating a *status quo* that will be present always. And that is just why we ought to worry. The years will bring changes of style and need and site. Nothing in this country which belongs to that class of construction that is being handed over to the relentless grip of concrete is likely to be wanted beyond a generation or so. The architect, advancing in his artistic mastery of the new material, is going to be ashamed of it; the owner—perhaps a new owner in the course of years—is going to want the site for another purpose, the character of the neighborhood having changed; or, at least, he is going to want the building more up to date in its fashion. But what can be done about it? It is going to cost like the mischief to demolish this thing that we are building to-day "to last forever." Not wrecking, but costly quarrying, is the term that will have to be used to describe the annihilation of the structure that is now being so light-heartedly ordered and constructed. We have been, perhaps, just a little too smart. The one comfort is that the problem is likely to be our successors', much more than it will be ours.

FOREIGN CRITICS ON AMERICAN CITY PLANS

Americans who are interested in scientific town planning are so accustomed to looking across the sea for instruction, that the question of how our American work may look to foreign eyes is quite a novel thought. In a pamphlet containing the more or less informal addresses made at a town-planning conference in the Guildhall in London, last October, there are, however, some general descriptions of American progress in this direction. T. C. Horsfall, who is regarded as the leader of the movement in England, is quoted—in the annoying English method of indirect quotation—as follows: "America had carried out town-planning to a certain extent, and with that marvelous expenditure of energy and money which one expects from our American relations; and the arrangement of their parks and the way they connected them with each other by wide boulevards, was the admiration of all town authorities in Germany, which was pre-eminently the land of town critics." Sir Aston Webb, lately returned from this country, is quoted in these words: "America was attempting at present to do town planning without any compulsory powers, and all who had been there would agree with him in saying that they were doing a magnificent work for their towns. They did it by exciting public interest in the question, and starting up a desire among the residents in the town to see their towns more beautiful, more sanitary, and more fit for human beings to live in than the outskirts of their towns at present were. They devoted part of their ener-

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gies to what was called the park system, another part to their dock system (if the town happened to be a seaport) and they devoted another portion to the laying out of the streets themselves. Their plan was to prepare a scheme; to lay it before all those citizens who were likely to have influence, and by degrees that scheme took shape. And a very great deal of good had been done in that way." This is a pretty accurate description; and that our plans, developed for the most part without foreign suggestion, are in general so well thought of, by those to whom we are now beginning to turn for instruction, is certainly gratifying.

PUBLIC BUILDING SITES

The discussion regarding the site for the new custom house in Boston is illustrative of a very common but too little understood condition. The government appropriated half a million dollars for a site. This is not nearly as much as was desired, not as much as the Boston representatives in Congress tried to secure, not as much as at one time it seemed as if they were going to secure; but the old drama, made familiar by many a congress, was enacted with Economy and Bargain in the title roles. In the house the aggregate carried by the public building bill was greatly reduced from that granted by the senate; and then, that there might be no hard feeling, it was spread among just as many states and districts as in its original form, the only difference being that—everybody contributing to the economy—the appropriation was spread more thinly. So Boston got a half million only, for the site. After an official examination of the various obtainable sites, James K. Taylor, as supervising architect of the Treasury, announced every one of those proposed "architecturally unavailable"—that is, as unworthy of the use desired to be made of it. This is an opinion in which the Boston architectural profession concurred, and the building is held up. Now the point of the case is its illustration of the unfairness of that method of a uniform cutting down which seems to the rural congressman so eminently fair. A small town is to have a new post office. The senate bill has appropriated, we will say, $10,000 for a site. The bill is cut down in the house, and the appropriation for the town is consequently reduced to $8,000—no very serious matter, for in a small town there are a multitude of sites at $8,000 that are almost as good as those at $10,000. But in the big city, the reduction, for example, from $500,000 to $400,000, for site may mean all the difference between a location that is commonplace and one that is architecturally very desirable. In fact, that is just what it generally does mean; or it may, as in the Boston instance, hold up the building altogether, because there is absolutely no proper site to be obtained at the lower figure. And there is one more consideration. It would be better civic economy for the government to place the building for which it is expending in a large city several million dollars, on the most desirable site, than to place the $50,000 or $100,000 structure of the little town—which will soon be outgrown—on the best site, to the detriment of the big building. If one or the other must suffer in the good cause of economy, it surely were better to economize on the site of the little building than of the great.

THE HARVEST OF THE YEARS

A series of articles giving the history of Wall Street as a thoroughfare have recently been running in Harpers' Magazine under the attractive title, "The Story of a Street." In the aggregate they contain many more words than has been used in the history of considerable towns, and yet one is impressed by their utter inadequacy fully to tell their story—by the hoplessness, indeed, of any one ever writing "the story of a street." Wall Street, of course, would be an especially baffling subject—perhaps the most difficult street in the United States to tell the story of; for who can make record of all that goes on upon even the quietest thoroughfare and of all that results therefrom? The biography of every person living upon it, or who has ever lived upon it, would make only a beginning of the tale. The mere history of the structures upon its edge would be incomplete without the story of the dreams and heartaches of their designers and builders. Nevertheless it is a curiously interesting story that is told, if one keeps in mind the physical Wall Street of to-day. However long may seem the space of one hundred and twenty years when looking backward, it does not seem a great period if one begin at a date within his own memory and carry it forward. Doing this, and noting how the gardens of Wall Street have disappeared and the houses have changed in the last one hundred and twenty years, one may well speculate as to the future. For even one hundred and twenty years ago, Wall Street property seems to have been the most expensive in the city—

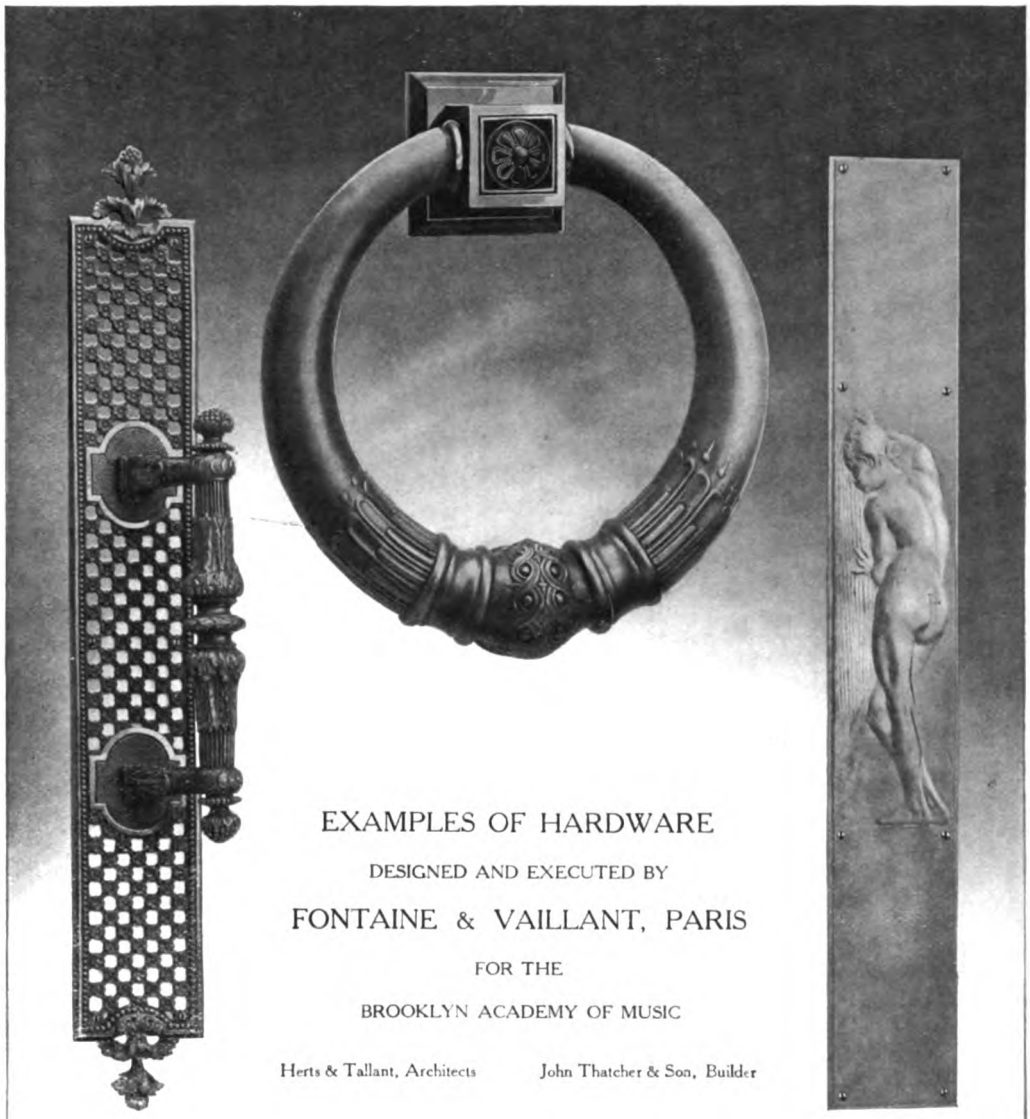
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rents at £70 the year and taxes—and its character fixed. In 1789 there was dedicated on Wall Street Federal Hall—designed by Major L'Enfant and believed by the city to be "a monument of the ages." "Certainly," says the historian, "no building of such imposing proportions or such artistic design had ever been projected in any American city, and the sum expended on its construction was wholly unprecedented. At its completion it not only realized but surpassed all expectations. . . . Indeed, the marble pavement, the painted ceilings, the crimson damask canopies and hangings and handsome furniture were considered altogether too magnificent by the anti-Federalist press, which saw in them new proofs of the aristocratic tendencies of the new government, and bitterly attacked the distinguished architect, who in the end received little glory and no pay for his services." The building was fated to have a very short history, and the only mark it has left is a jog in the northwest corner of Wall and Nassau streets—as if in judgment on such profligate extravagance. But what would have been thought of the costliness of the present Stock Exchange, or of the interior finish that distinguishes the foyers of the Singer and City Investing Company's buildings, and how are these products going to be esteemed one hundred and twenty years from now?

A SUGGESTIVE PROTEST

While the English town-planning bill has had in general the approval, and the earnest support, of those in England who are best qualified to discuss it, there has been—as recently summarized here—some suggestive and interesting criticism of various details. This criticism has been largely against the failure properly to safeguard, as the bill's critics believe, the aesthetic possibilities of good town-planning. To this charge Raymand Unwin—architect for the Hampstead Suburb Trust and the First Garden City, Limited—has recently returned in a long communication to the London "Times." His earnest championship of the purposes of the bill and his own town-planning work, give much significance to his words. He says: "The preparation of a plan which is to govern the future development of a town is an event of unique importance in its history. By this plan the future of the town must to a very great extent be determined, its success made or marred to a degree almost irrevocable. It is of the utmost importance that this plan should not be hurriedly prepared, that it should be based on complete knowledge of all the circumstances affecting the town and its development, that, in fact, it should be the very best plan which human art and forethought can create after most careful consideration of all the local conditions of the existing town and of the site to be developed." Reciting then the method of procedure laid down in the bill, he urges a change to the extent that the central authority shall be called upon for advice before, instead of after, a scheme has been locally prepared. He well says: "If a town development plan is submitted by a local authority to the central authority after it is made, the central authority is practically confined to destructive criticism, mainly on matters of detail. Such criticism can at the very best prevent a few glaring mistakes, eliminate a few of the worst features from the plan, but can do little or nothing to secure that the plan should be a good one. We shall have numerous municipalities attempting to do that which in this country has hitherto been attempted only in a few isolated cases. Beyond a mere handful of people there is little experience, either professional or lay, little knowledge of what has already been done and proved in other countries. But, on the other hand, we have in the Local Government Board a central authority with ample opportunity for securing such skilled advice as is obtainable, for collecting from all countries fruits of their practice and experience. Surely this is a case in which the function of the central authority should be to advise and suggest to the local authority, in the first instance, to put at the disposal of the local authority the whole of their information, to put them on the right track, to make suggestions on the particular plan such as experience gained in other places would enable them to do, and to do this at a time and in a form when such suggestions would not only be of the greatest value to the local authority, but when they would be most acceptable. Any one who has prepared a plan of any sort knows how much more valuable and acceptable suggestions are if made before the preparation of the plan than if the same suggestions come in the form of criticism after it has been made. On the ground of economy alone, this should commend itself." There could hardly be better put an argument for referring to experts before attempting locally the great work of replanning a town. It is not a work that can be satisfactorily done, as Americans have too often assumed, in the odd moments snatched from other professional duties.

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EXAMPLES OF HARDWARE

DESIGNED AND EXECUTED BY

FONTAINE & VAILLANT, PARIS

FOR THE

BROOKLYN ACADEMY OF MUSIC

Herts & Tallant, Architects John Thatcher & Son, Builder

Door Pull

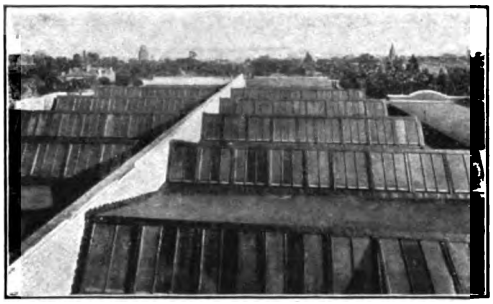
Push Plate
(By Charpentier)

AMERICAN REPRESENTATIVES

·RVSSELL & ERWIN·MFG·CO·
·CONTRACT·AND·ART·DEPARTMENT
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Here is an example of modern roof building. The structure is that of the Canadian Kodak Company of Toronto, Ontario. The roof is of the "saw tooth" type, with wire glass and metal window frames. The tin is our "Target-and-Arrow Old Style" brand, selected as being the most durable made today. The roof affords absolute protection from fire, and is giving entire satisfaction. In the course of time it will stand as another example of the durability of tin made by the slow, old fashioned, hand-dipped process.

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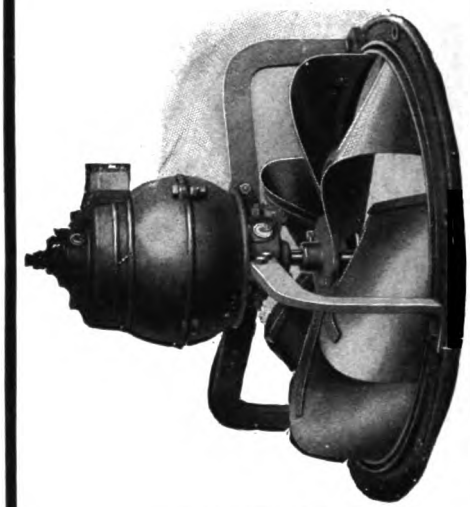
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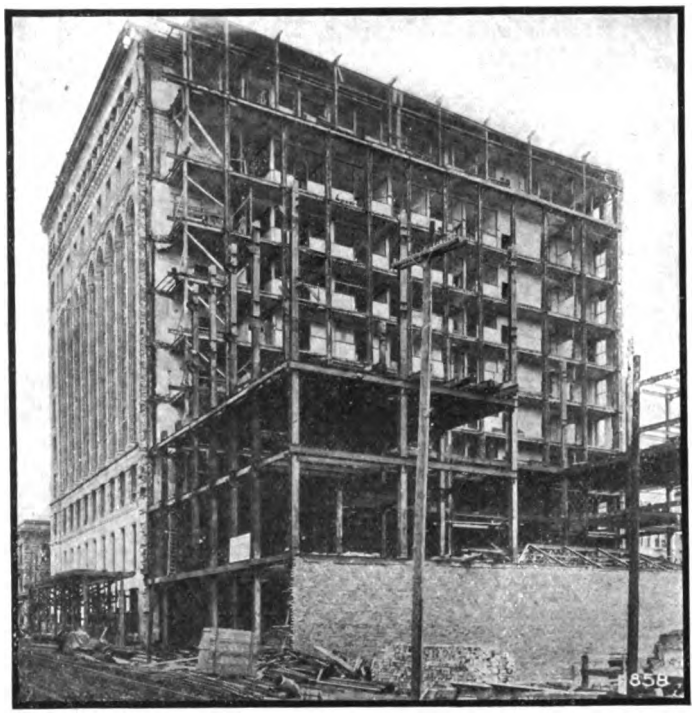
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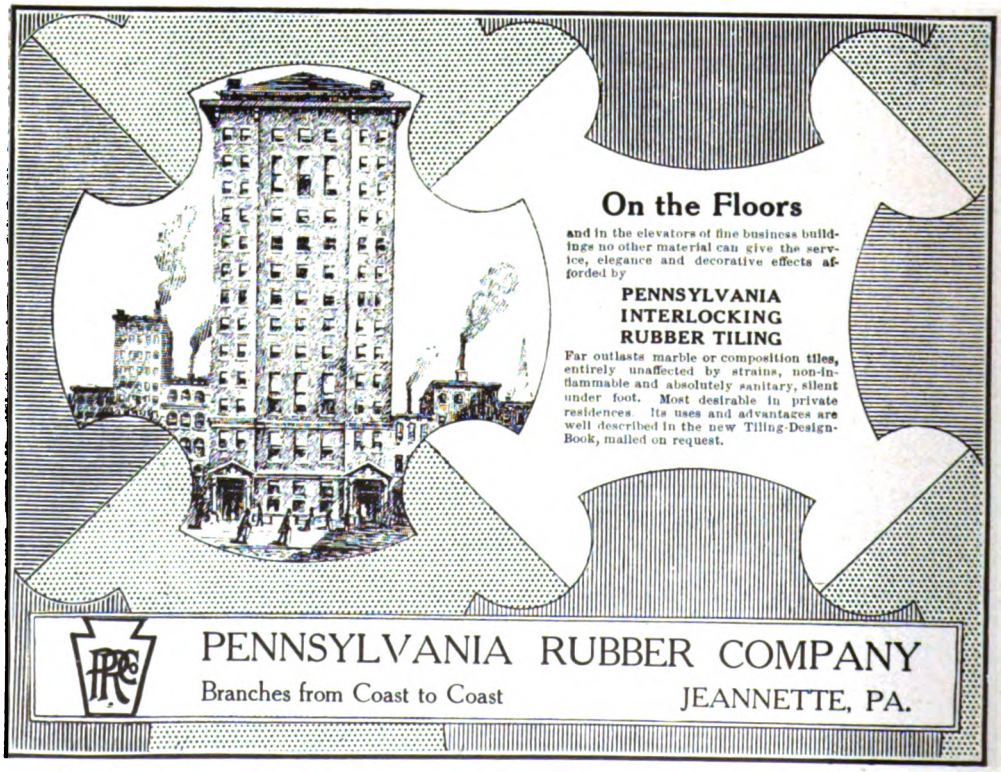
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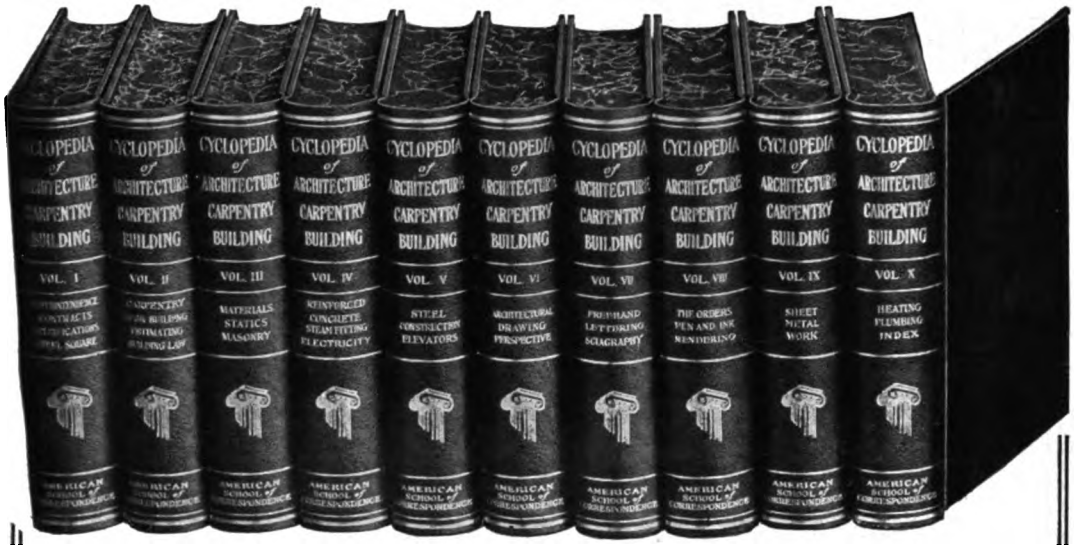
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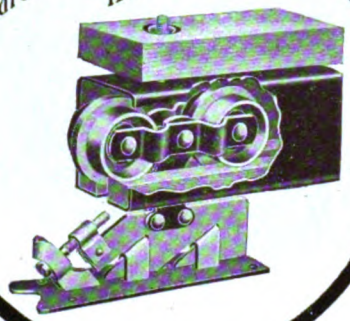
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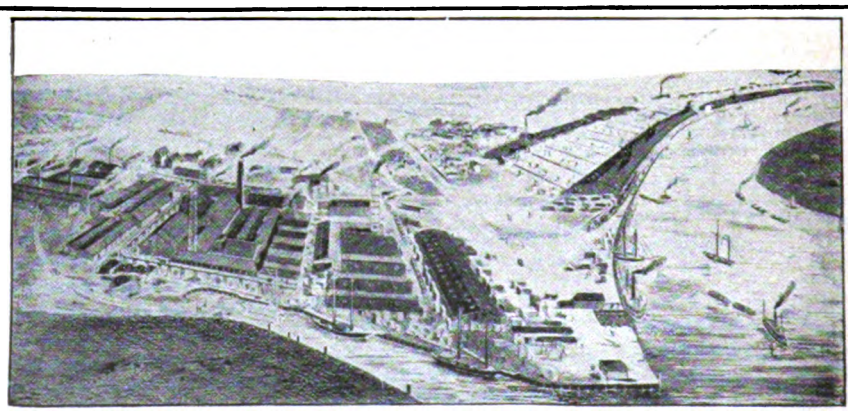


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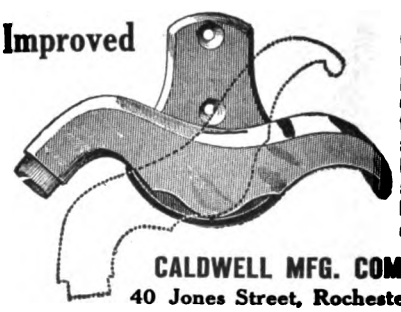
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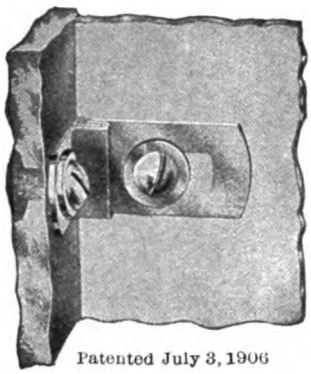
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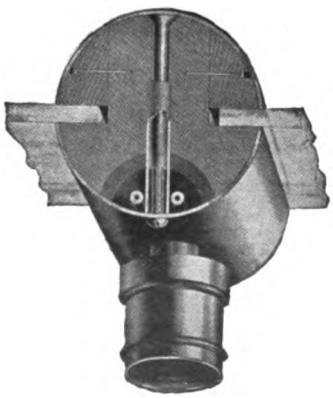
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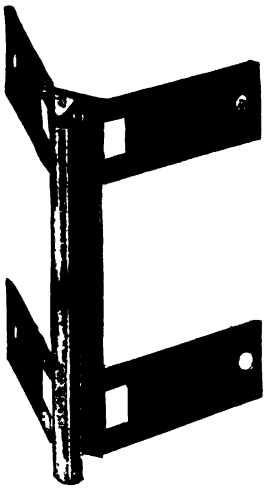
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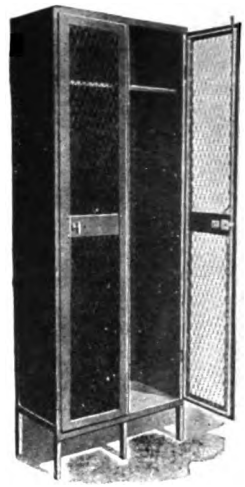
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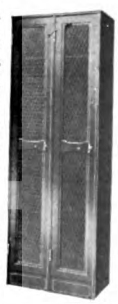
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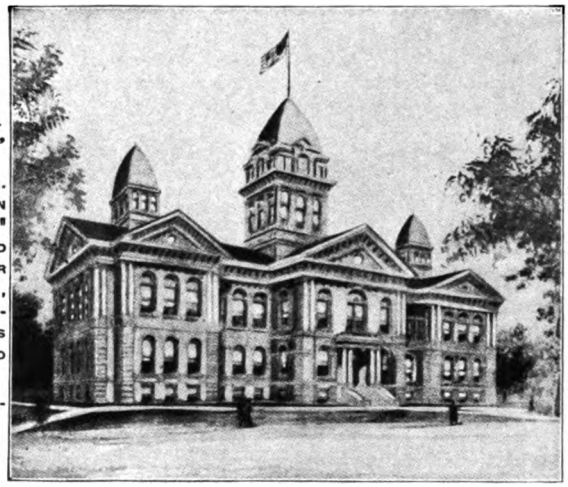
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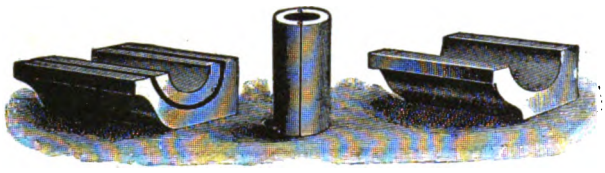
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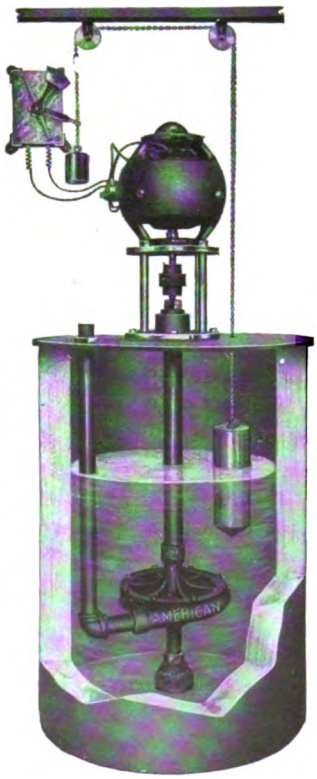
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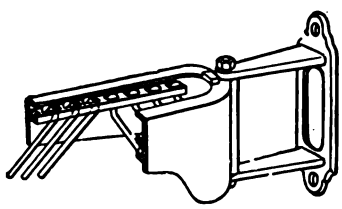
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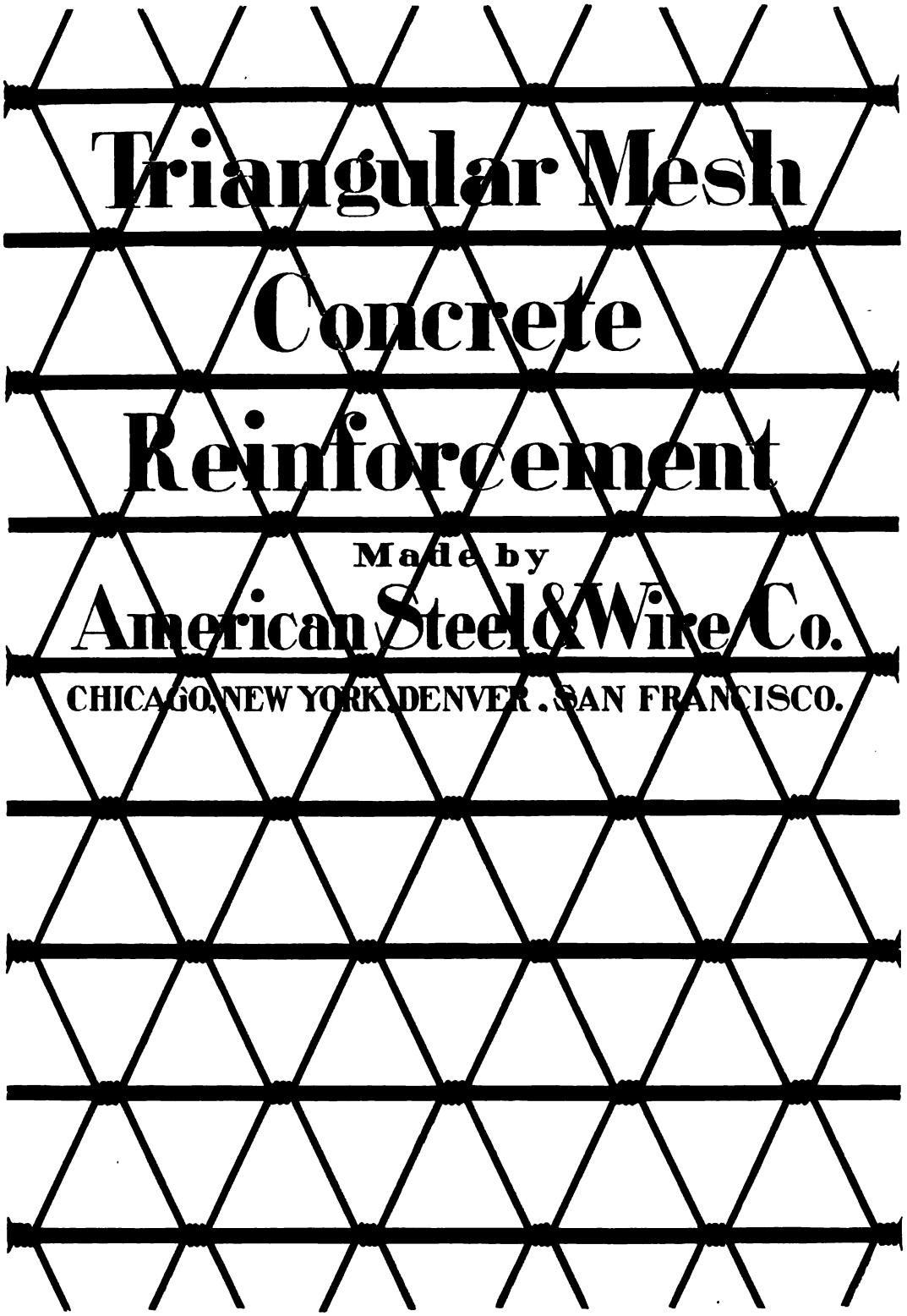
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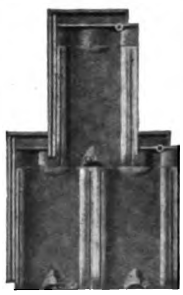
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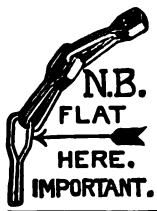
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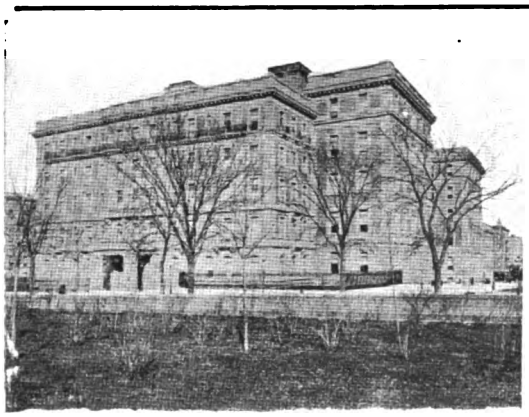
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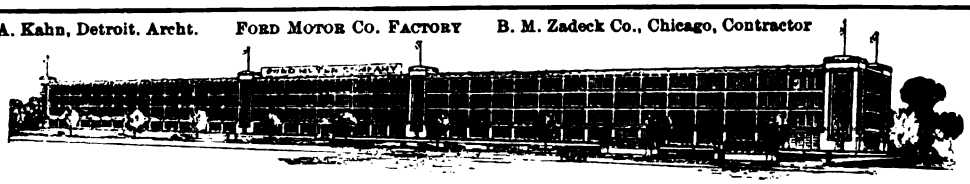
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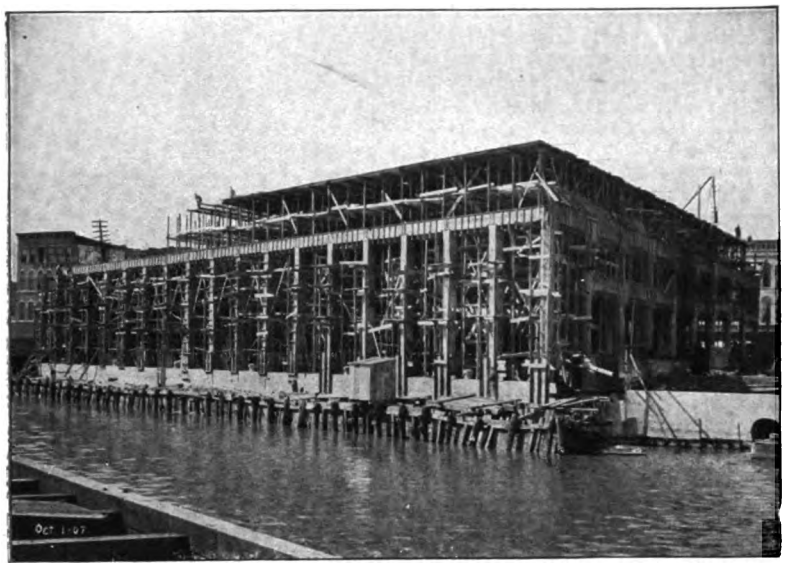
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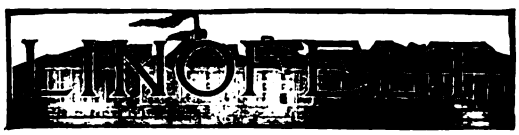


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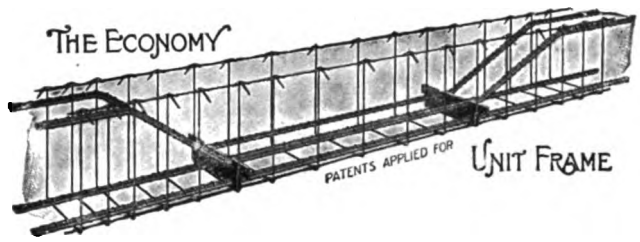
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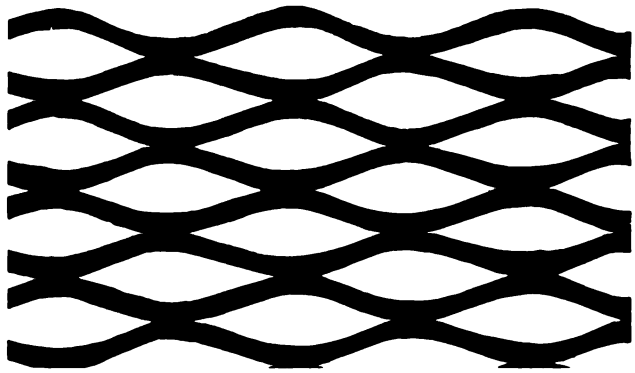
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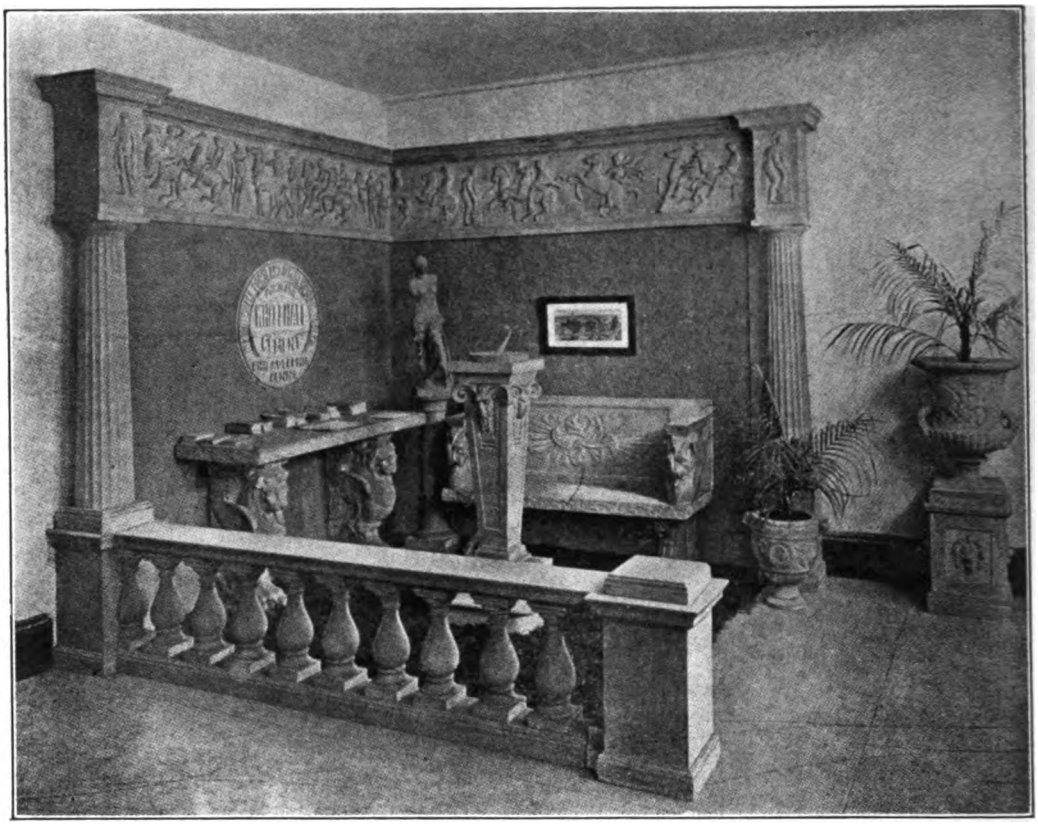
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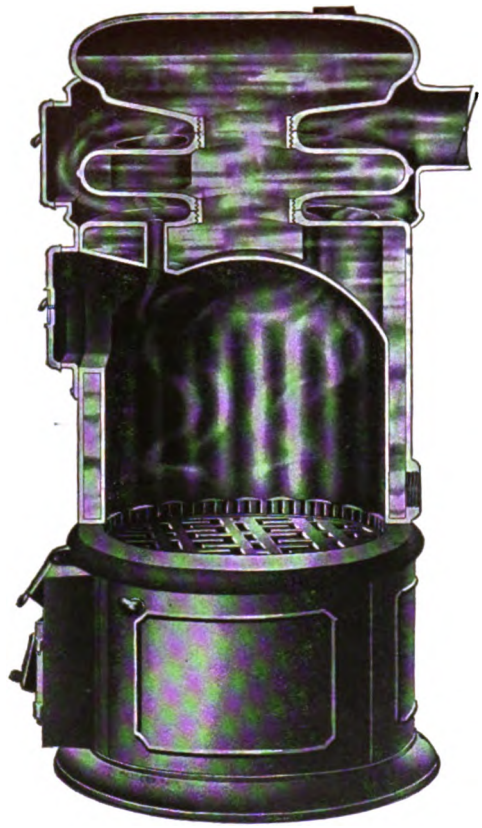
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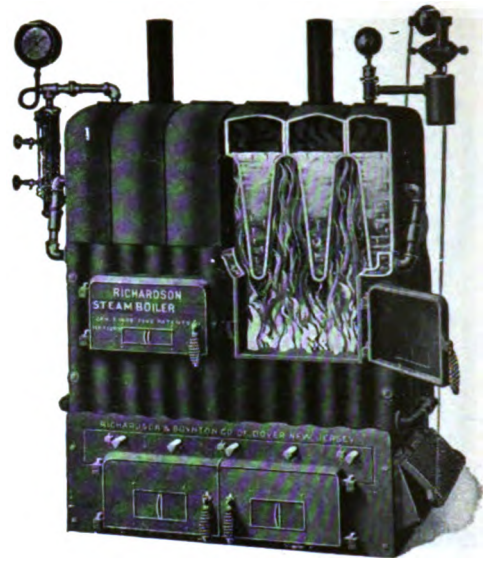
The sectional view shows the economical and effective fire and water travel.

The boiler is simple in construction, easy to erect, and economical in the use of fuel.

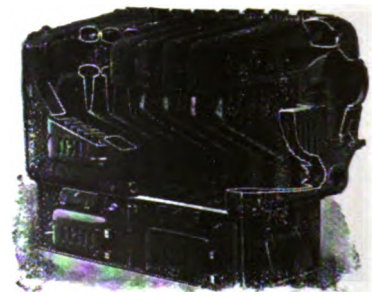
Write for Blue Book describing this new boiler

Pierce, Butler & Pierce Mfg. Co.
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Steam and Water Boilers
made by
Richardson & Boynton Co.
(Established 1837)
Are superior heaters in all respects.
Several thousand are in use. They please the people.
Are specified by hundreds of leading architects.
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Architects of Repute

Have found the "**PROGRESS**" to be the one boiler suitable for all low pressure heating requirements.

Made in 78 convenient sizes. Steam up to 12,000 sq. ft., and Hot Water up to 20,000 sq. ft.

Especially adapted for the economical heating of schools, hospitals, libraries, and other large public buildings.

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Established 1850.

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COMBINATION Electric Weld GAS WATER HEATER

You have the double satisfaction of selecting the best article at the lowest price if you specify the Electric-Weld Multiple Installation in your plans for "storage systems" of hot water service.

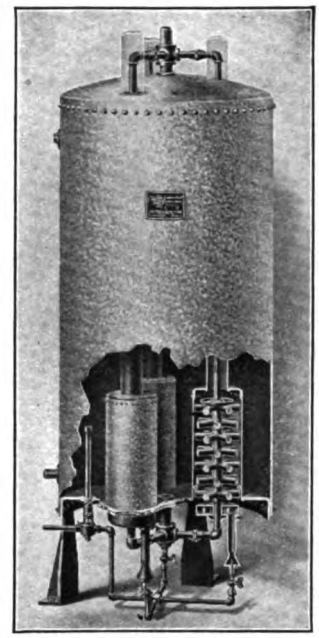
The Multiple Installation consumes less gas per gallon of **hot** water than any other gas water heater, and costs less to put in.

It concentrates all the heat on the water—wastes none by radiation. Burners and heating coils are surrounded by the water.

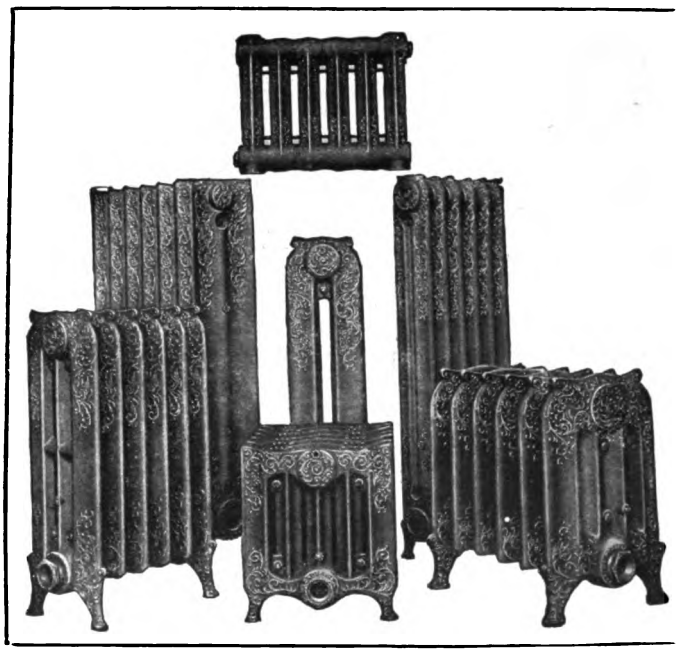
The Multiple Installation is made to fit the needs of any large building whatever—boilers in capacities of 100 gallons and upward, with three or more burners and coils.

Architects who have tried out the Multiple Installation are its warmest friends. Look into this a little. Ask the nearest enterprising plumber about it, and send for our booklet, "Hot Water in the House."

Look up "Electric-Weld" in Sweet's, pages 744-5-6.



JOHN WOOD MANUFACTURING CO., Conshohocken, Pa.



TRITON

If you specify radiators for ornaments, we are sure you will say TRITON.

If you specify radiators because they are necessary, and want the very best, you certainly will say TRITON.

In either case, you are sure of having the most efficient radiator made.

United States Radiator Co.

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Our name is stamped on every foot

We guarantee

SILVER LAKE SASH CORD

because we know that it is made by skilled labor, on the best braiding machines and from the best stock obtainable.

Specify SILVER LAKE A

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Harmony in design and color should be carefully studied where the interior of the home is concerned. We execute decorations and furnishings from our own original designs which give that individuality so essential in the modern home. :: :: :: ::

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GARBAGE STODDARD BURNERS



The Only Right Way to dispose of Perishable Refuse. See "Sweet's," Vol. 2

Stoddard Garbage Burner Company

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Poorly Heated Homes

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Your fitter will apply the Generator in an hour and will remove it at our expense if it fails to remedy the trouble. If you wish this proposition in writing, we will send the guarantee on receipt of the statement of your trouble. Talk this over with your fitter, for most fitters know

THE HONEYWELL HEAT GENERATOR

and know that it is working a revolution in hot water heating plans and figuring.

6,000 Honeywell Heat Generators have been installed
"Must Be Something In It"

Honeywell Heating Specialty Co., Wabash, Ind.

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Are Indispensable for Accurate Work

For Sale Everywhere. Send for Catalog No. 20.

The LUFKIN Rule Co. Saginaw, Mich., U. S. A. New York, London, Eng. Windsor, Can.

Directories for Office Buildings

Cheapest because sold outright.
Best because of the patented system for making changes.

Samples, estimates and catalog sent on request.

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The North Carolina Granite Corporation

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This is one of the whitest granites known.

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A *liquid tiling* applicable to plaster, brick, wood, metal.

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Tells everything regarding the buying and selling of real estate. What to do and what not to do. How to make deeds and leases and all other documents. Price.....$1.00

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WHEN
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COMES

Thirty-five cold winters have proven it. They can't give out when the cold snap comes —have been thoroughly tried. Thousands of pleased people are using them. Many good architects are specifying them because they are *best*.

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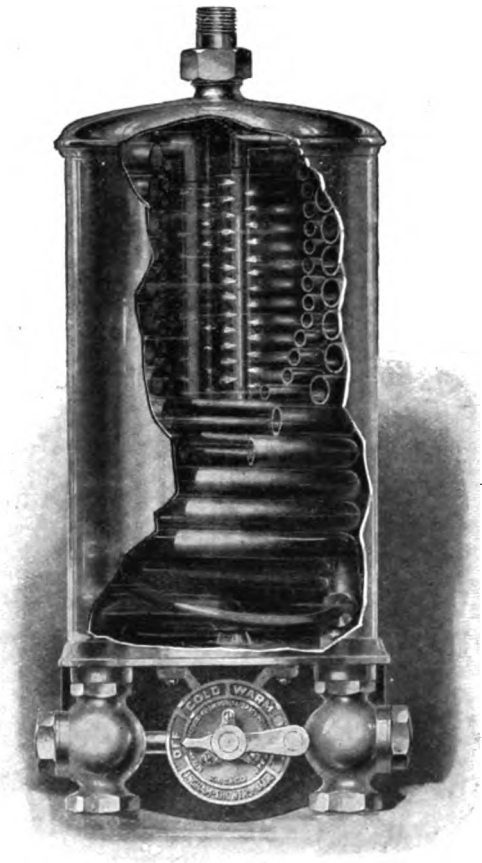
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KEWANEE BOILER COMPANY
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A new principle in shower bath mixers by which radiation from the steam coils heats the cold water before the two are finally mixed.

Scalding Impossible

Cold water and steam controlled by a single handle. Impossible to admit steam to chamber in advance of cold water. Capable of the closest regulation. Built for either steam or hot water operation. Entirely noiseless.

Chicago University say: "The only satisfactory and safe shower bath mixers we have found."

Wisconsin University ordered 36 mixers after most thorough investigation of all similar devices.

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221 Thomas Acme Air Washers Installed

Installations in all large cities—in almost every State—some machines used for summer air cooling only—most machines are washing and cooling air during hot months, also air washing and humidity regulating in winter

Bankers say—"*Indispensable*"

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"*Very profitable*"

Clergymen say—
"*Surprising results*"

School superintendents say—
"*Wonderfully quieting*"

Restaurant managers say—
"*Completes perfect service*"

Write for list of installations in your vicinity or send us detail on any fan system of heating and ventilation, and we will tell you what added service and decreased maintenance a Thomas Air Washer will give.

Thomas & Smith
15 South Carpenter St.
Chicago

The Powers Regulator

For house heating boilers and furnaces



No. 2 Regulator for Hot Air Furnace.

No. 3 Regulator for Steam Heater.

No. 4 Regulator for Hot Water Heater

Regulates the fire automatically from the temperature of the living rooms. Saves 20% of the fuel and 50% of the work of running a heater.

We manufacture a large number of temperature regulating systems for different purposes. They are all described on pages 706-709, 1907-8, Sweet's Index, in any architect's office.

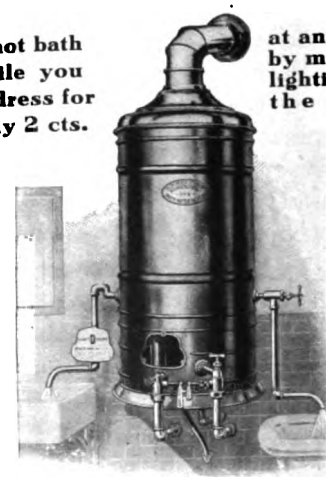
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Hot Water Instantly

A hot bath while you undress for only 2 cts.

at any time by merely lighting the gas



A Humphrey Instantaneous Water Heater in a bath room makes hot water always ready. Turn on and light the gas—it pours forth and runs as long as the gas and water are left on. No expense when not drawing hot water. Handsome, durable, inexpensive and economical. No dirt, no labor, no repairs. Always ready. Price $23.50 to $140. Tell us your needs; we will gladly recommend what will best supply them. Handsome catalog No. 9 is free for the asking.

Humphrey Co., 539 Rose St., Kalamazoo, Mich.

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GURNEY HEATERS
FOR STEAM OR HOT WATER



GURNEY HEATERS for either steam or hot water are everywhere recognized for quality, efficiency and economy.

GURNEY HEATERS require little attention. They are very easy to operate.

GURNEY HEATERS consume less fuel than others. All the interior is direct fire surface; so every ounce of coal produces the maximum amount of heat.

GURNEY HEATERS have behind them the best engineering and mechanical skill, and the materials used in their construction are of the highest grade. They thus wear much longer and give the utmost satisfaction.

Be sure and see that the **GURNEY** is used in **YOUR** work, and avoid disappointment. Can be easily installed in old or new buildings. Capacities fully guaranteed: size for any heating requirement. Send for illustrated catalogue or consult your local dealer.

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Distributers in the leading cities of the country



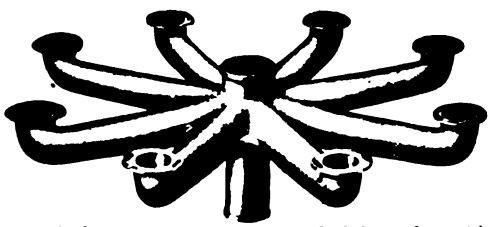
SPACE SAVING IN PUBLIC TOILET ROOMS

The Kelly Octopus Closet Fitting cuts in half the space heretofore necessary for public toilet rooms. The use of the Kelly Octopus Fitting takes closets away from the walls and arranges them rationally in circles in the middle of the room, surrounded by light and air. The walls are left free for lavatories and windows.

Partitions are fastened to our special fittings around the main stack—closets are bolted to the Octopus Fitting, and are supported independent of the floor.

Each closet is 20 inches from the main stack, and has independent discharge into the stack. No back venting is required, and every closet has perfect ventilation — not possible with the customary long runs of pipe.

Write us for prices on the Kelly Octopus closet fitting. We will detail the application of this fitting for any public toilet room on receipt of blue prints.

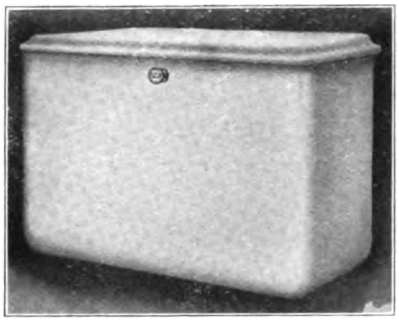


Kelly Octopus fitting (patents applied for), when set in place, completes the roughing in for eight water closets. Note that this fitting is a one-piece casting.

THOS. KELLY & BROS.

Congress St. and 46th Ave., Chicago

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"White as snow, impervious as flint."

Porcelain Enameled All Steel Closet Tank

The "Kazoo" porcelain enameled all steel closet tank has no lining, no wood, no composition.

The "Kazoo"

Two all steel porcelain enameled tanks, with air space between.
Outer tank is one piece of steel.
Inner tank is one piece of steel.
Both tanks porcelain enameled inside and out.

Can't leak—No seams or joints.
Sweat? No; our ½ inch air space prevents it
Guaranteed impervious to any water or earth
Weighs less than a wood tank, costs no more

Catalogue "D" for the asking

The Enameled Steel Tank Company
Kalamazoo, Mich.



"Note air space between tanks—overcomes sweating."

American Porcelain Co.

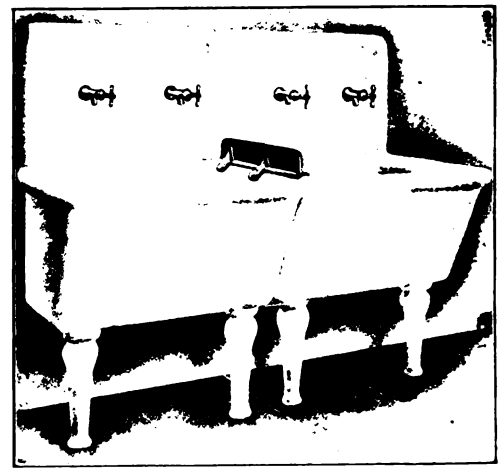
NEW BRIGHTON, PA.
N. Y. City Office, 101 BEEKMAN ST.
MANUFACTURERS OF and SPECIALISTS IN

SOLID PORCELAIN WARE

"PERFECTION"



"PERFECTION"



American Porcelain Co.

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"Paragon" Patent Self Closing Work Leads

Beware of numerous so called Crown Handle Self Closing Work made by certain manufacturers. Our registered trade mark, "PARAGON," is your guarantee. See that this is stamped on all goods, and you will secure the best.

Read what the Seelbach Hotel, Louisville, Ky., have to say about

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LOUIS SEELBACH, PRES. & MANAGER. OTTO SEELBACH, V.P. AND SEC'Y & TREAS.

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COR. 4TH & WALNUT STREETS.

THE SEELBACH HOTEL CO., INCORPORATED. PROPRIETORS AND MANAGERS.

THE ONLY FIREPROOF HOTEL IN THE CITY.

Louisville, Ky. July 2nd, 1908.

The Sanitary Company,
1120-1122 Prospect Ave. S.E.
Cleveland, Ohio.

Gentlemen:-

We are in receipt of your favor of the 29th inst., making inquiry about the work furnished by your Company in the completion of "THE SEELBACH", three years ago. Your "PARAGON" self closing work, was used without exception throughout the Hotel, and after three years of heavy usage, we have had little or no trouble or expense on account of same.

The degree of satisfaction experienced by us leads us to venture the statement that there is not a better nor more reliable cock on the market than yours. Our dealings with you have been very pleasant indeed, and you have carried out your agreement with us to the letter.

Yours very truly,
"THE SEELBACH HOTEL COMPANY"
BY Louis Seelbach
President.

THE SANITARY CO., Cleveland, O., U.S.A.

Exclusive Makers of "PARAGON" Plumbers' Brass Goods

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JENKINS BROS. RADIATOR VALVES

FOR USE ON STEAM HEATING PLANTS

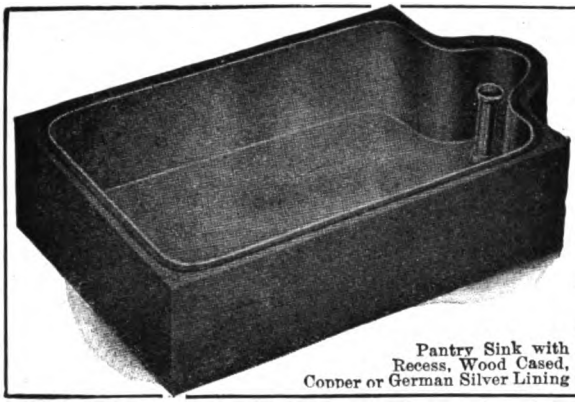
are the easiest to keep tight. The metal and workmanship are of superior grade. They are furnished in many different styles,—plain, finished and polished, or nickel-plated. Every genuine valve is stamped with Trade Mark, as shown in the cut, and guaranteed. Copy of new illustrated catalogue mailed free on request

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The ONLY BRASS GOODS GUARANTEED 5 YEARS

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Established 1850

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BOSTON COPPER RANGE BOILERS
are the BEST made and are all GUARANTEED



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Designed in every detail to give long and reliable service. Embodying only highest grade materials and skilled workmanship in their construction. Special sizes to order.

DAHLQUIST MANUFACTURING COMPANY
Largest Manufacturers of Copper Boilers in New England
40 WEST THIRD STREET SOUTH BOSTON, MASS.

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MANUFACTURERS OF

Vacuum Cleaning Apparatus for all purposes

Principal Office and Factory **Hartford, Conn.** Agencies in all large cities



THE GORTON QUICK OPENING RADIATOR VALVE

Can be used with any low pressure Vapor or Vacuum Systems of Heating.
One third of a turn of the lever handle will open or close the valve.

SEND FOR PRICES

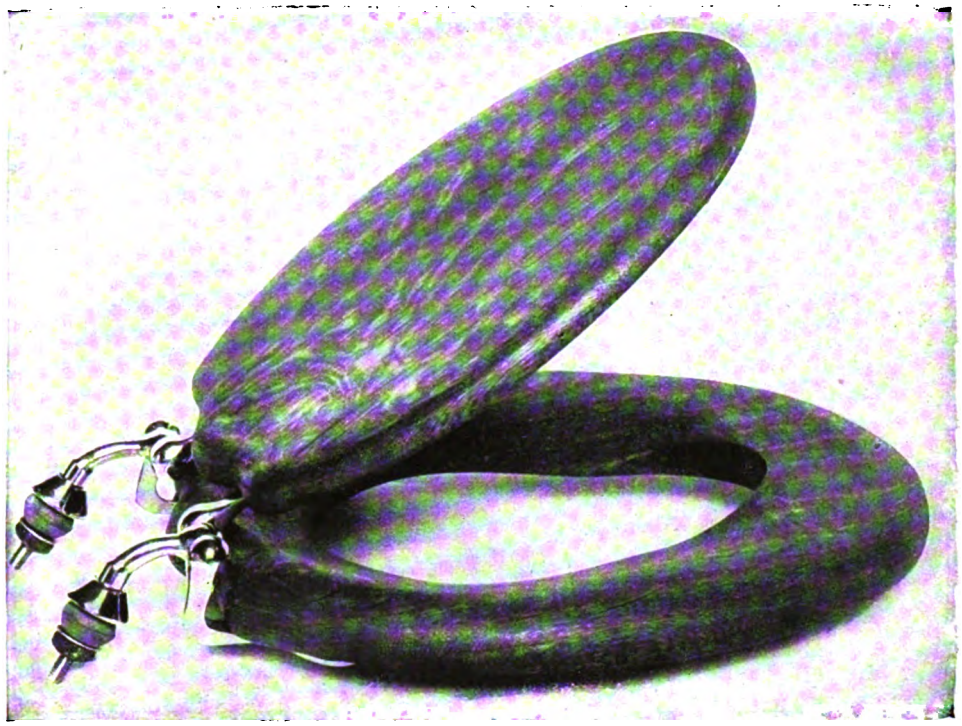
GORTON & LIDGERWOOD CO., 96 Liberty St., New York

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"Never-Split" Seat

GUARANTEED for Five Years not to come apart at joints or split.

"The Bolt in the Wood makes our Guarantee Good"



A Work of Stability—Sanitary to the Highest Degree

Make Your Specifications Clear as to Quality and Finish desired. It's for the best interests of all concerned. The exact terms may be obtained from our Catalogue "C."

Practically all First Class Plumbers are posted on the virtues of "Never-Split" Seats, and will not be likely to substitute an inferior make—but it is of importance that desired finish of Seat be clearly understood.

For specification requirements see page 8 of our Catalogue "C"

Never-Split Seat Co., Evansville, Ind.

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An Attractive Shower for Private Residences or Clubs

One of the 150 styles and sizes which we are prepared to furnish on a few days' notice.

Write for Catalogue "G."

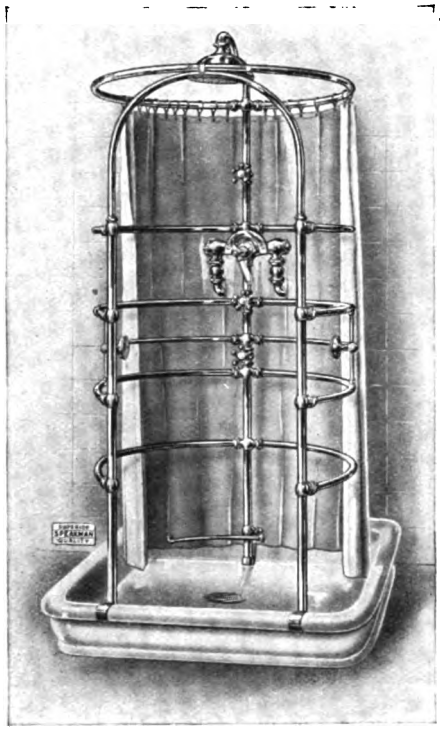


Figure 1020.
Nickel Plated Brass Needle Shower with Bidet and Liver Spray. Operated with **Speakman's Non-Scalding Regulating Valve (simply by turning the one handle from left to right).**

List $175.00

Receptor not included.

All of our Needle Showers are furnished with strainer unions, which prevent sediment from getting into the sprays or valves.

See our full page ad. in Sweet's

Speakman Supply & Pipe Co.

Riverview Works

Wilmington, Delaware

Manufacturers of the largest line of Showers made

OFFICES

156 Fifth Ave., New York City—Albert G. Weber
Monadnock Bldg., San Francisco, Cal.—W. E. Gilchrist

"Ideal"

Solid Porcelain for the Home Bathroom

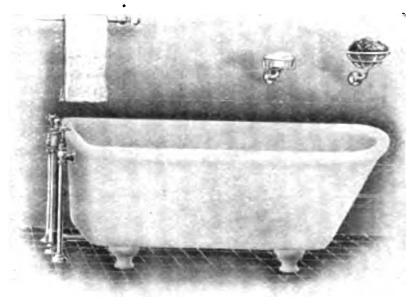


Plate 4-K

An "Ideal" Solid Porcelain Bathtub of light construction has become a necessity for installation in modern sanitary home bathrooms.

Our plate 4-K "French" pattern "Ideal" Solid Porcelain Bathtub is the most desirable fixture for your bathroom. Made entirely of clay materials, fired to a hardness with the strength of rock, with no metal to rust or corrode, no danger of peeling, as the glaze is an integral part of the fixture. Nothing can discolor the surface, as it is not affected by the action of acids from soaps or bath powders, and needs no cleaning preparation to keep its pure, white surface free from dirt.

Thousands are already giving genuine satisfaction in homes, apartments and hotels throughout the world.

Send for Catalogue "P-K," showing representative fixtures from our complete line.

The Trenton Potteries Company

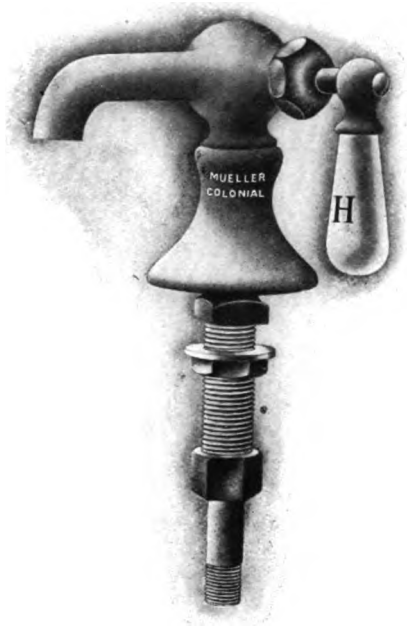
Main Offices & Works, Trenton, N. J., U.S.A.

THE CANADIAN TRENTON POTTERIES CO., Ltd.

St. Johns, Quebec

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Mueller Colonial Plumbing Brass Goods



D-10891 (Patent applied for)

In keeping in mind the necessities of correct decision on all details to secure the harmonious development that produces symmetry in the whole, Mueller Colonial Plumbing Brass Goods are an important factor.

The arbitrary rules governing the manufacture of this class of goods result, in many instances, in the absence of the least essential of artistic endeavor.

Mueller Colonial Plumbing Brass Goods were designed with the definite purpose of coincidence with carefully thought out interior furnishings.

They are exemplars of a pattern and finish that show beauty in every curve without evidence of effort to obtain it.

Specimens of different lines are shown on pages 1269-1273 Sweet's Index, 1907-8 edition. Inquiries addressed to the Information Department will be given prompt attention.

TRADE MARK
COLONIAL
REGISTERED

H. Mueller Mfg. Co.

Works and General Offices
Decatur, Ill., U. S. A.
West Cerro Gordo Street

Eastern Division
New York, N. Y., U. S. A.
254 Canal St., cor. Lafayette

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THE CAHILL IRON WORKS

CHATTANOOGA, TENN.

"Southern Beauty" Lavatories



REGISTERED TRADE MARK

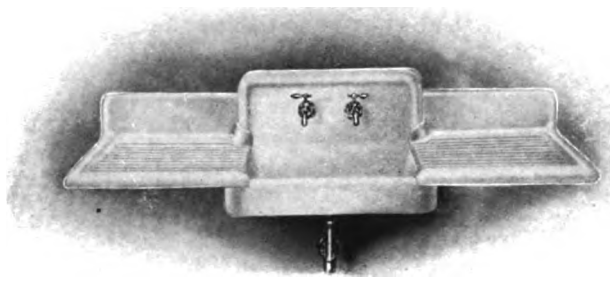


PLATE D-94 [Patent applied for]

One Piece Roll Rim and Apron Kitchen Sinks, etc.

OUR new "Chattanooga" sink combination with right and left drain boards. Nothing similar made by any other manufacturer. Sink, back and apron cast integral; drain board and 8-inch back cast integral. Sink and drain boards supported by concealed wall hangers. We also make this sink with corner piece cast integral for either right or left corner; made in several sizes, and can be furnished with one or two drain boards. Lists and full description given in our catalogue "D," copy of which we will be glad to furnish on application.

New York Office and Show Rooms:
101 Beekman Street
Thos. H. Hutchinson
Sales Manager

THE CAHILL IRON WORKS
No. 10 14th Street, CHATTANOOGA, TENN.

San Francisco Office
2006 Bush Street
CULIN & STANYAN
Sales Agents

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Where an ***Automatic Water Closet*** is a necessity, such as in a school or other public building,



The Unique

should be specified, because of its many special features that make it absolutely sanitary.

There is no box tank, where germs and dirt always collect.

The tank is always filled, so that when pressure is removed from the seat a strong flush is immediately delivered that cleans the bowl more thoroughly than twice the amount of water from a box tank possibly could.

It will not leak, no matter what the water pressure may be, and will work at any pressure from 15 to 160 lbs.

Features

Operates with less water than box tank
Guaranteed not to leak
No complicated parts to get out of order
No hammering in pipes
Noiseless in refilling
Extremely simple in construction

Send for catalogue giving illustrated description of details.

STAPLES VALVE CO. TRADE Unique MARK NEWBURGH, N.Y.

TRADE MARK.

STAPLES VALVE CO., Newburgh, N. Y.

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TO OUR PATRONS AND FRIENDS:

WE TAKE PLEASURE IN ANNOUNCING THE CONSOLIDATION OF THE

FEDERAL COMPANY OF CHICAGO

AND THE

HENRY HUBER COMPANY OF NEW YORK

UNDER THE TITLE OF

FEDERAL-HUBER COMPANY

SINCE THE ESTABLISHMENT OF OUR RESPECTIVE BUSINESSES IN 1857 AND 1876 WE HAVE EVER STRIVEN TO EXCEL IN THE MANUFACTURE OF PLUMBING FIXTURES, TO MAKE OUR PRICES AS REASONABLE AS WAS CONSISTENT WITH GOOD WORKMANSHIP, AND TO APPRECIATE SMALL ORDERS AS WELL AS LARGE.

THE MANY PROMINENT HOTELS, OFFICE BUILDINGS, PUBLIC INSTITUTIONS AND RESIDENCES, BOTH THROUGHOUT THE UNITED STATES AND ABROAD, THAT HAVE BEEN EXCLUSIVELY EQUIPPED WITH THE FIXTURES MANUFACTURED AT OUR FACTORIES, AMPLY ATTEST THE EXCELLENCE OF OUR WARES.

ASSURING YOU OF OUR CONTINUED EFFORTS TO MAINTAIN THE STANDARD OF OUR FIXTURES AND TO UPHOLD OUR UNITED REPUTATIONS FOR FAIR DEALING, GOOD WORKMANSHIP AND PROMPT DELIVERIES, WE BESPEAK FOR THE CONSOLIDATED COMPANY A CONTINUANCE OF YOUR VALUED PATRONAGE.

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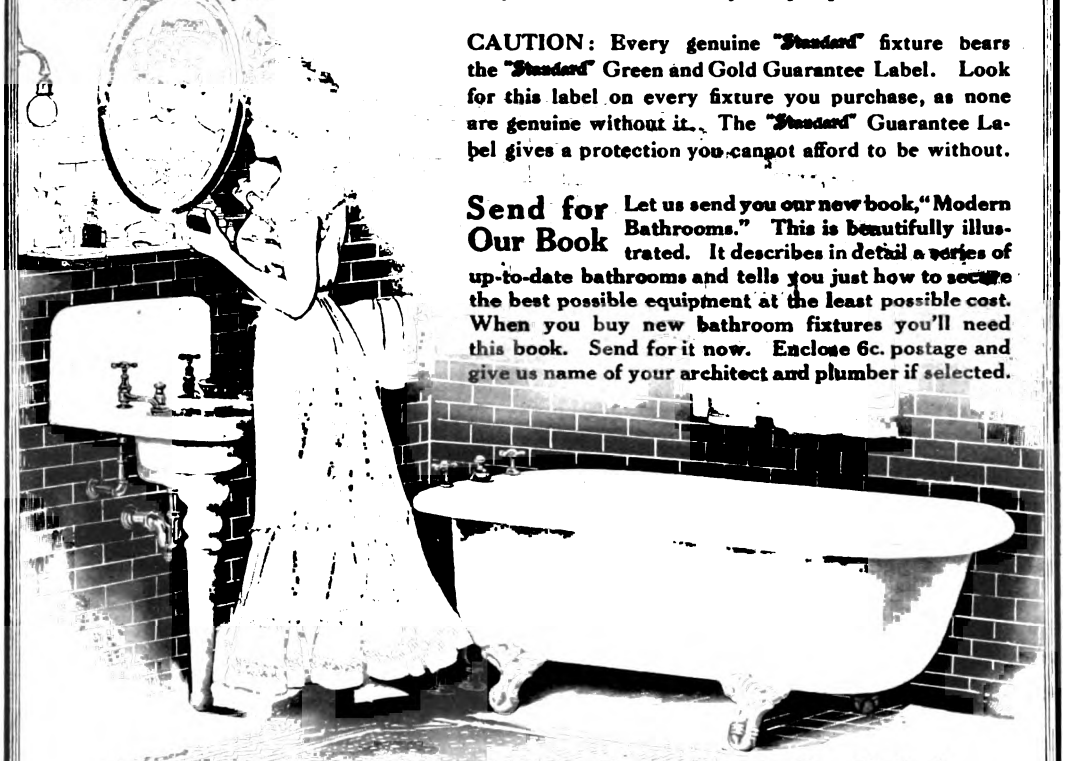
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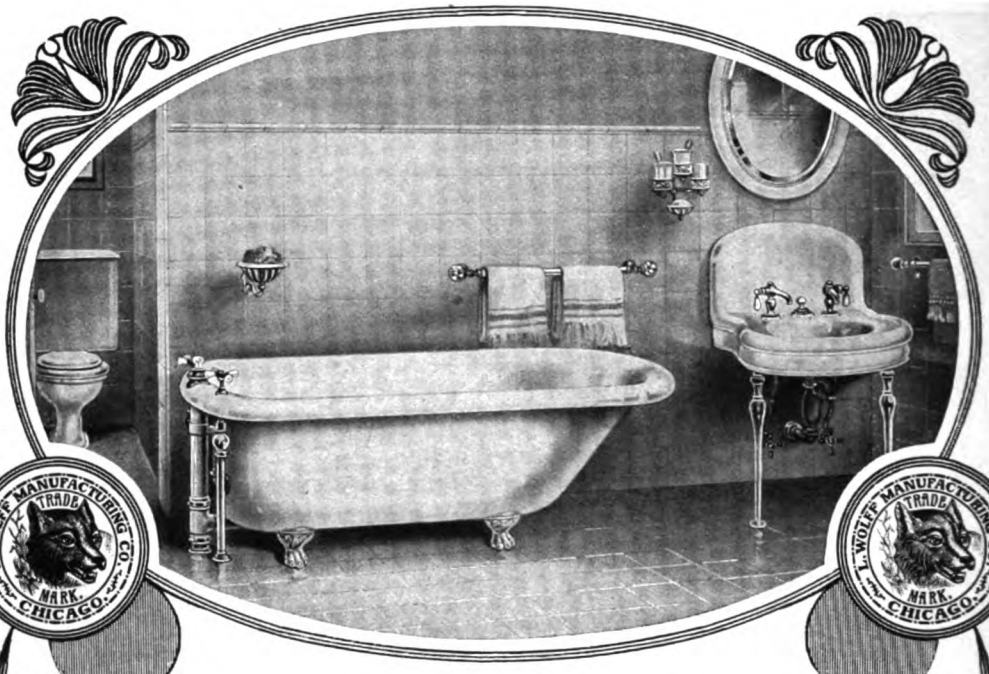
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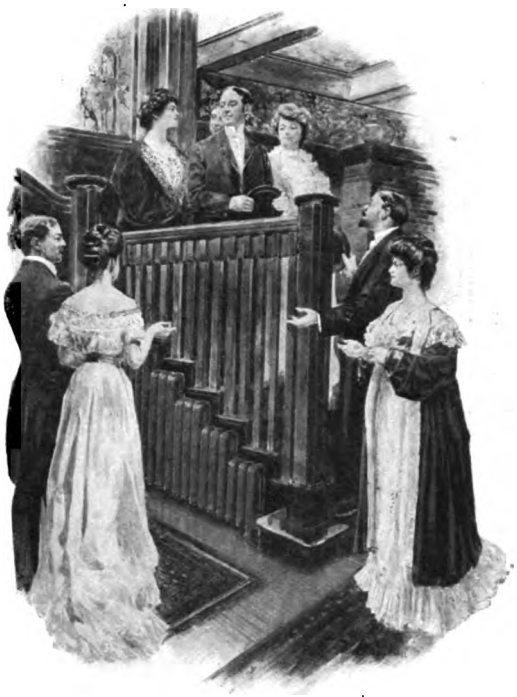
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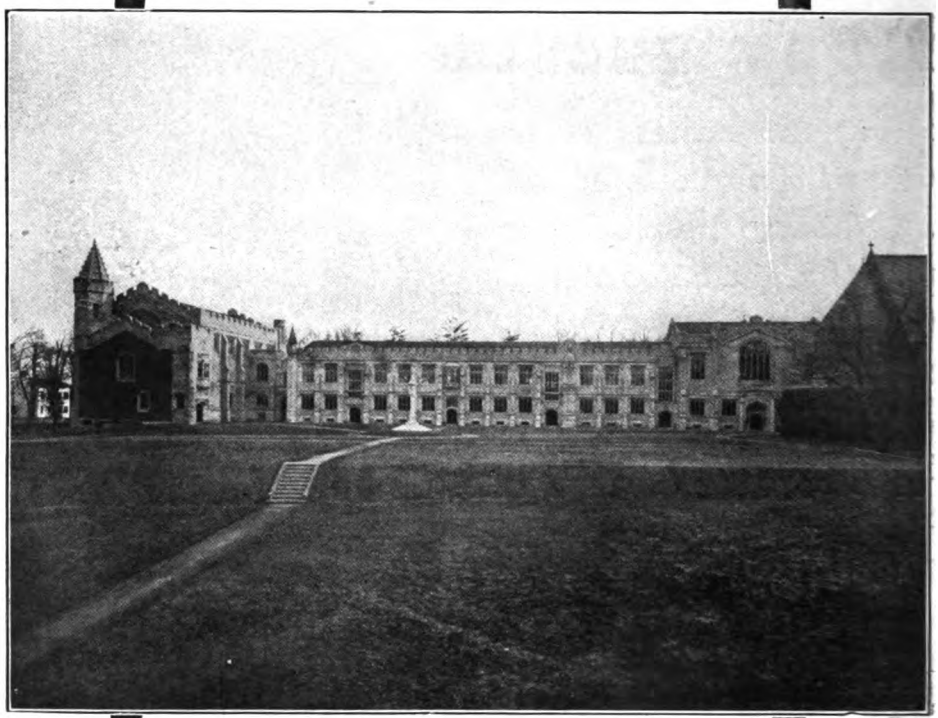
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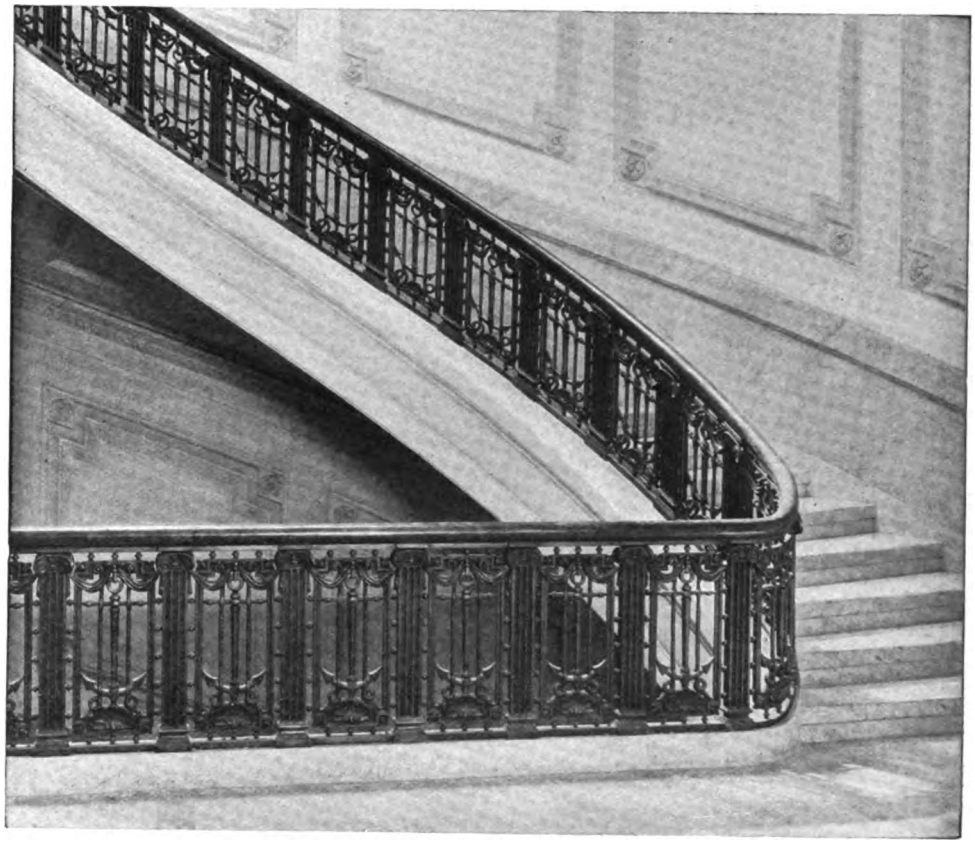


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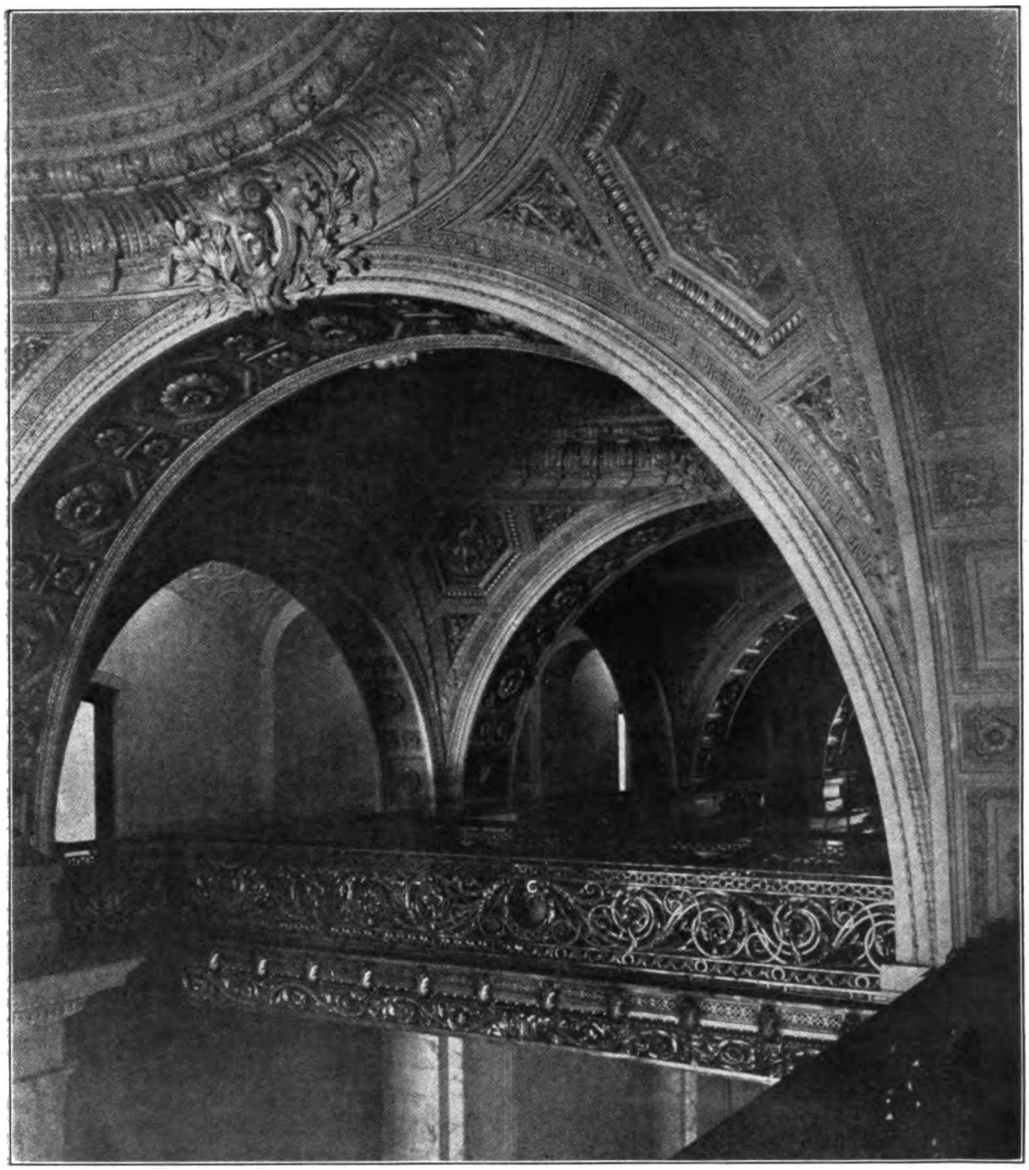
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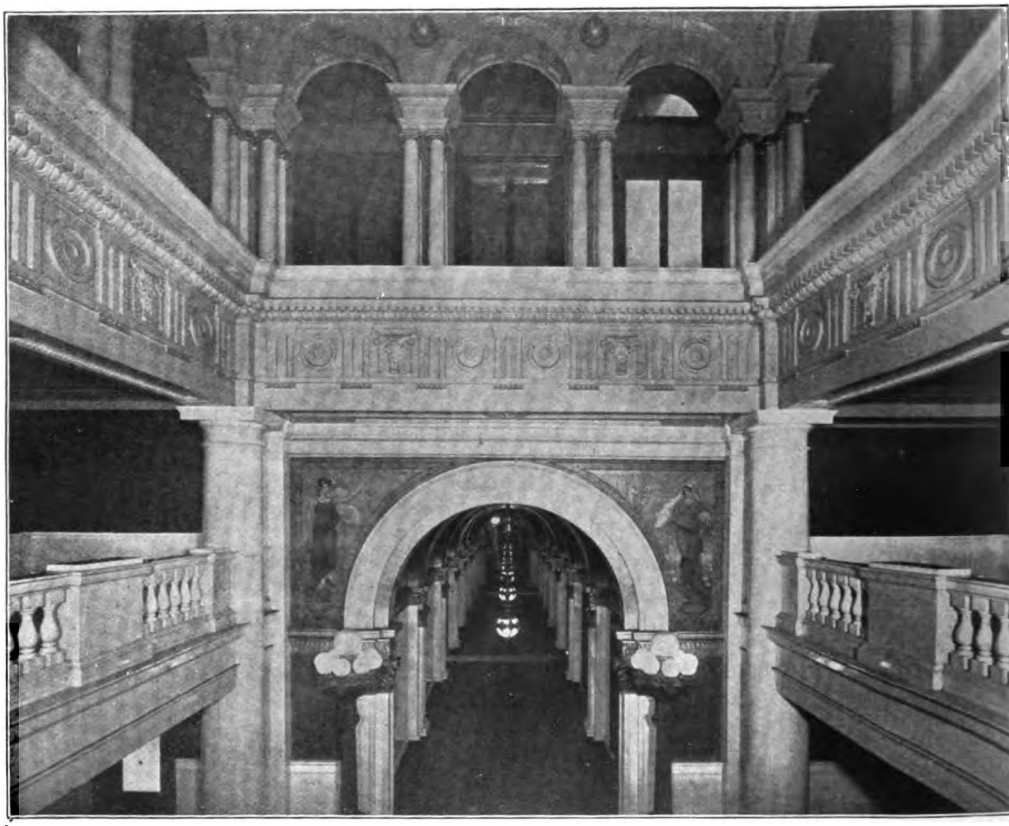
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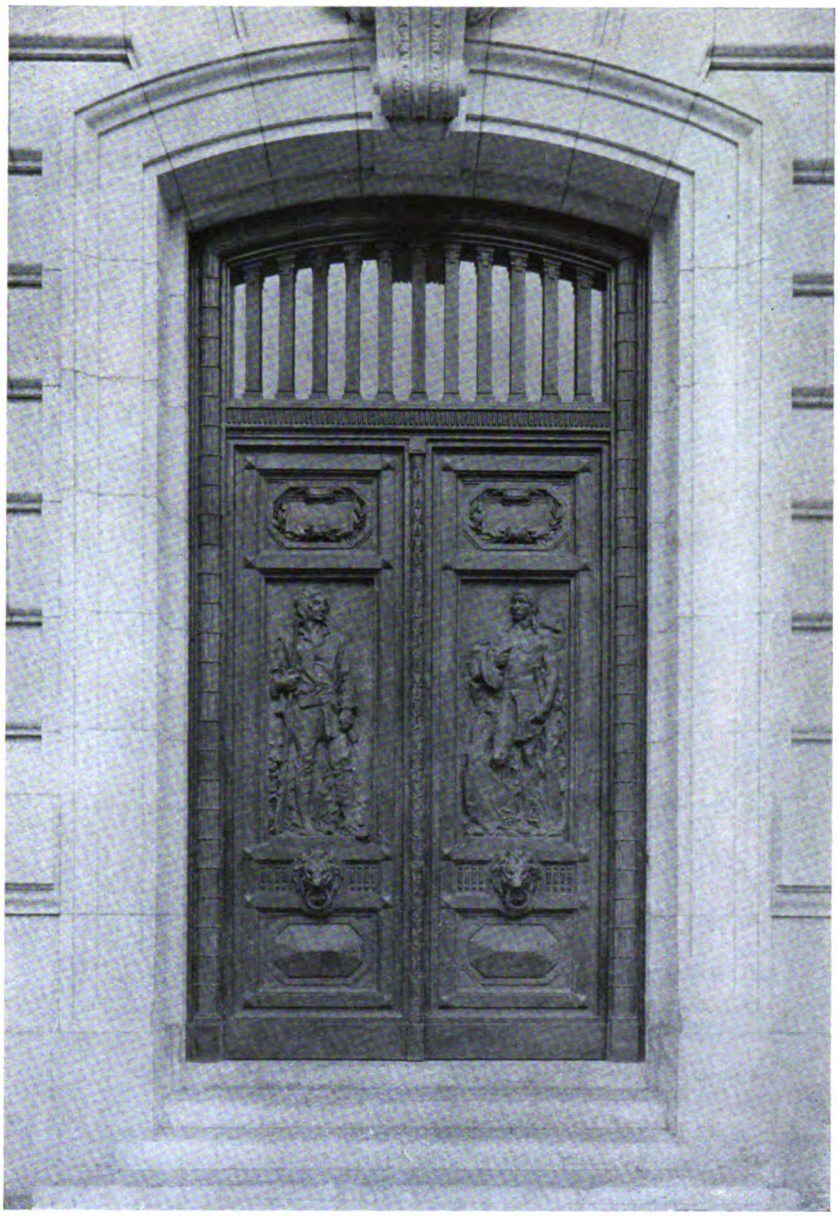
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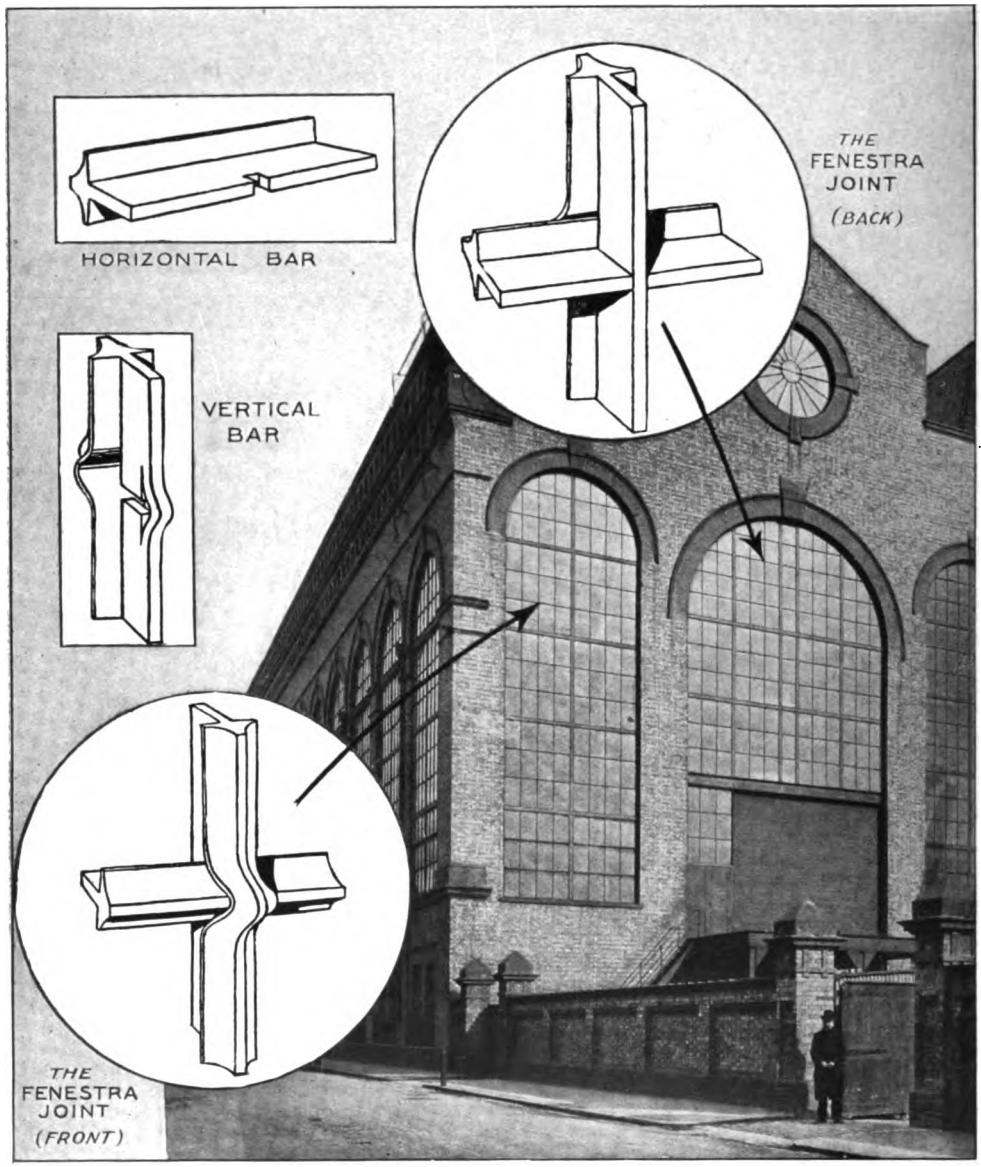
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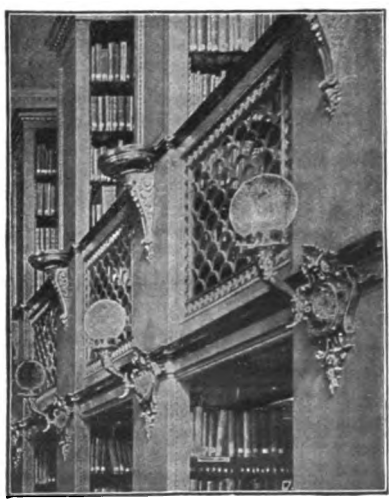
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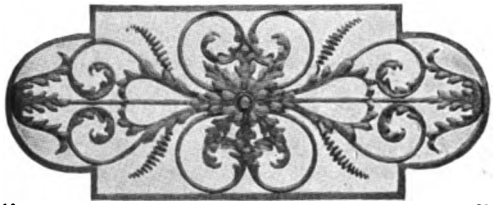
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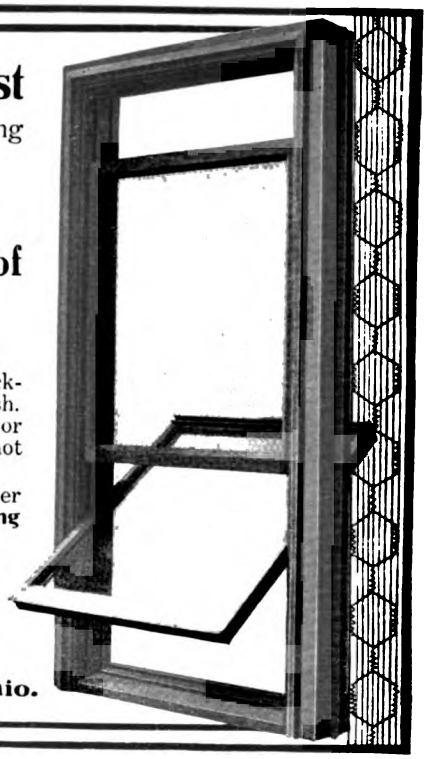
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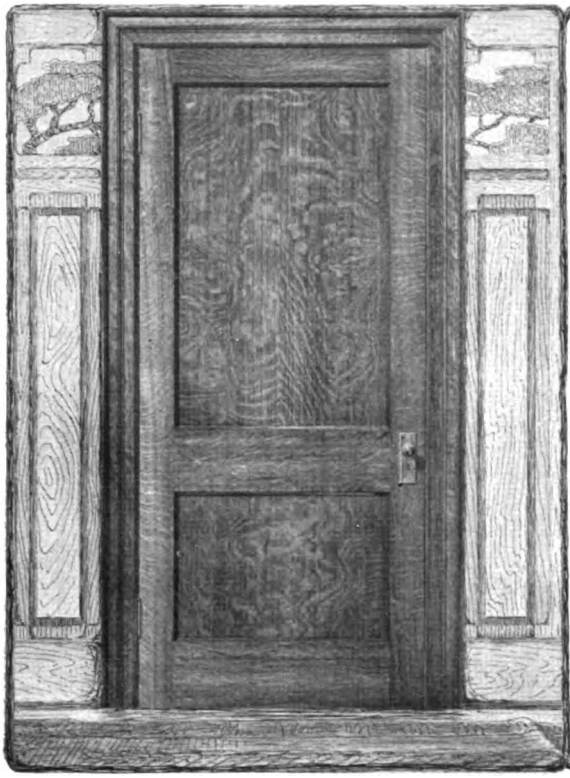
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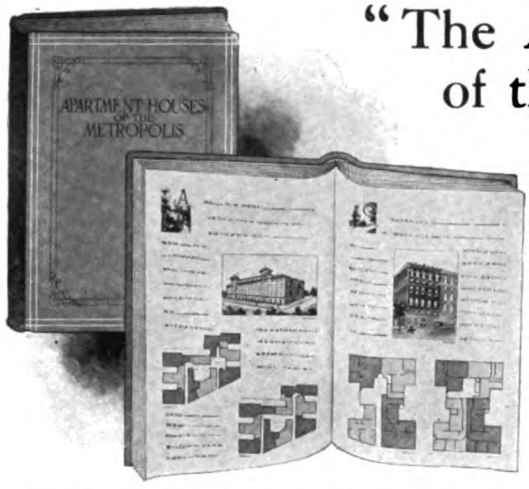
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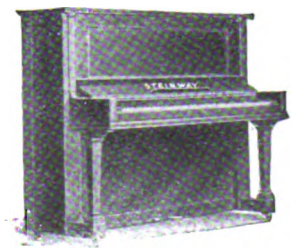
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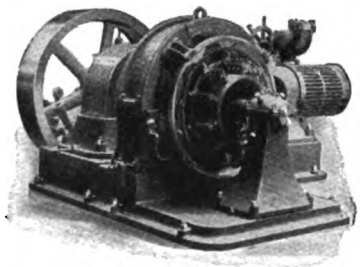
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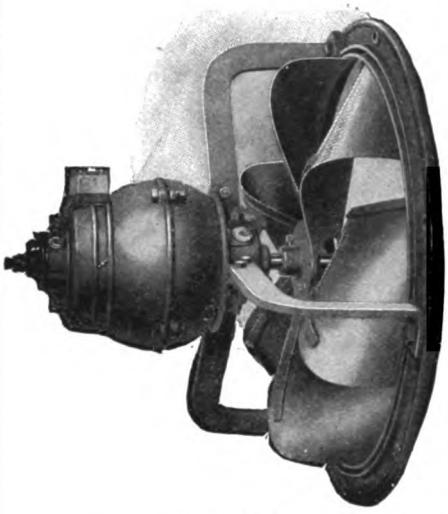
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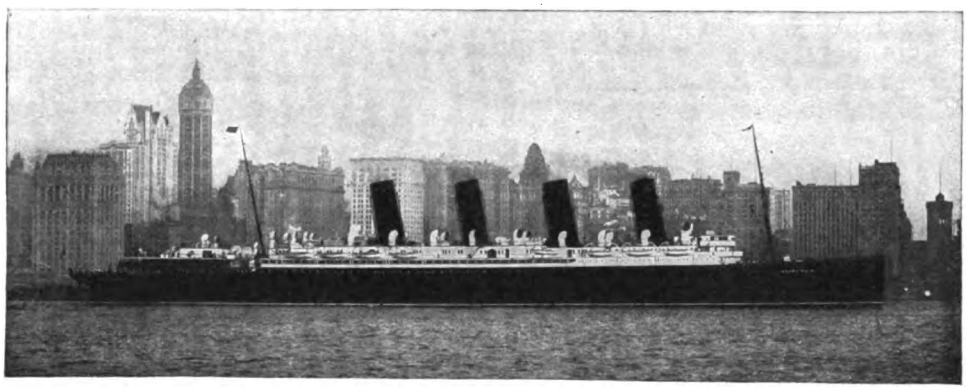
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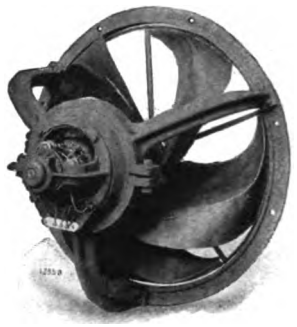
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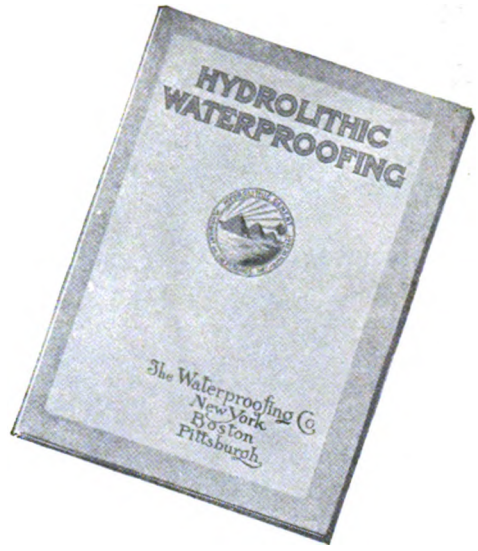
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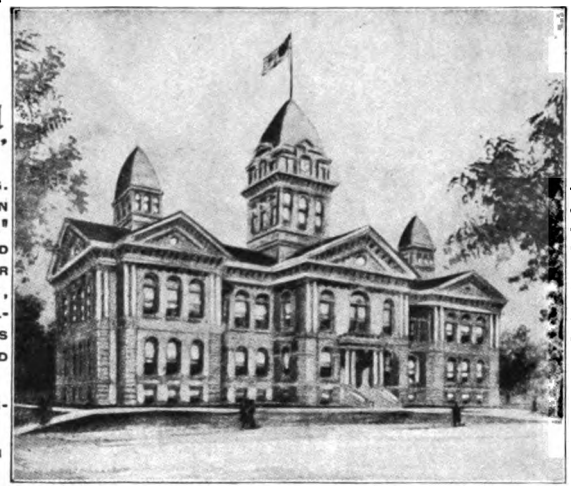
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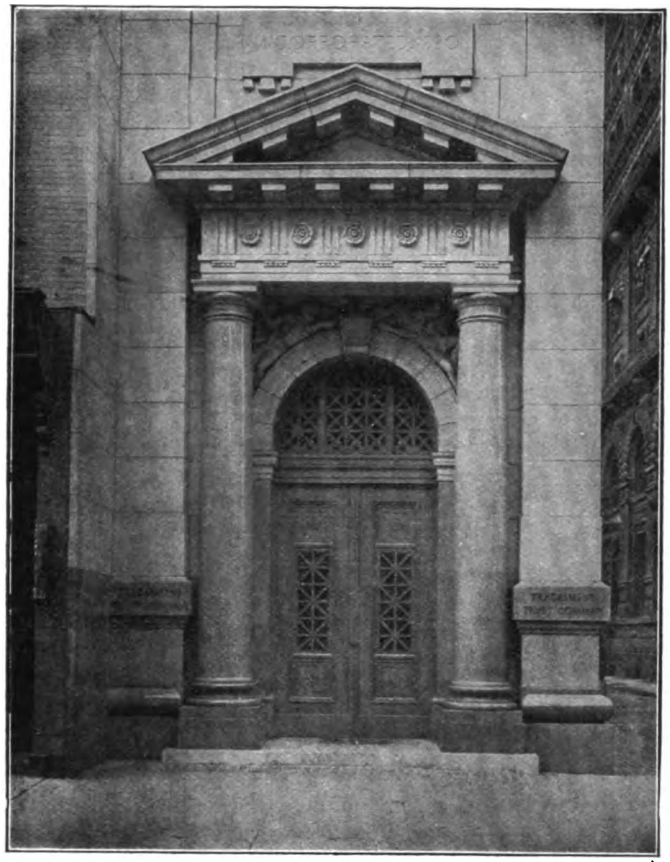
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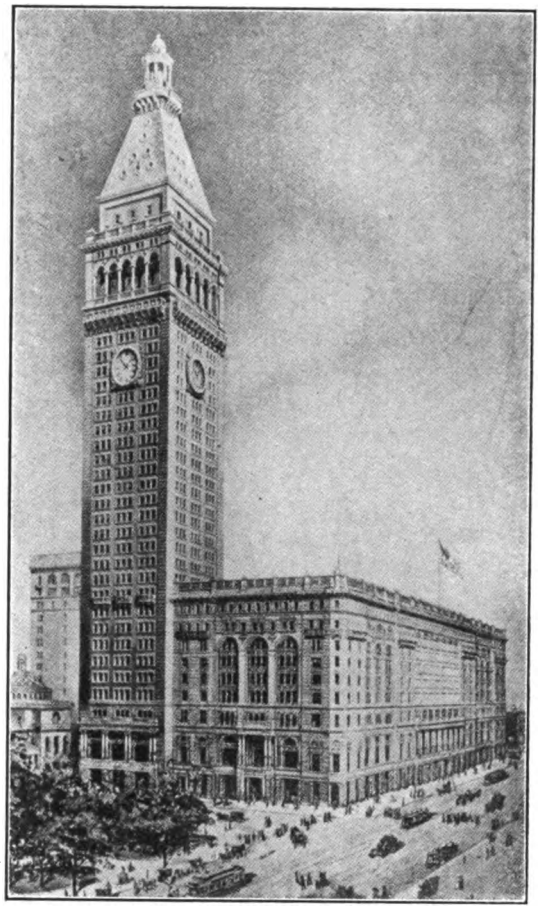
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THE ARCHITECTURAL RECORD

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THE NEW CHICAGO & NORTHWESTERN RAILWAY TERMINAL.

Chicago, Ill.

Frost & Granger, Architects.

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The
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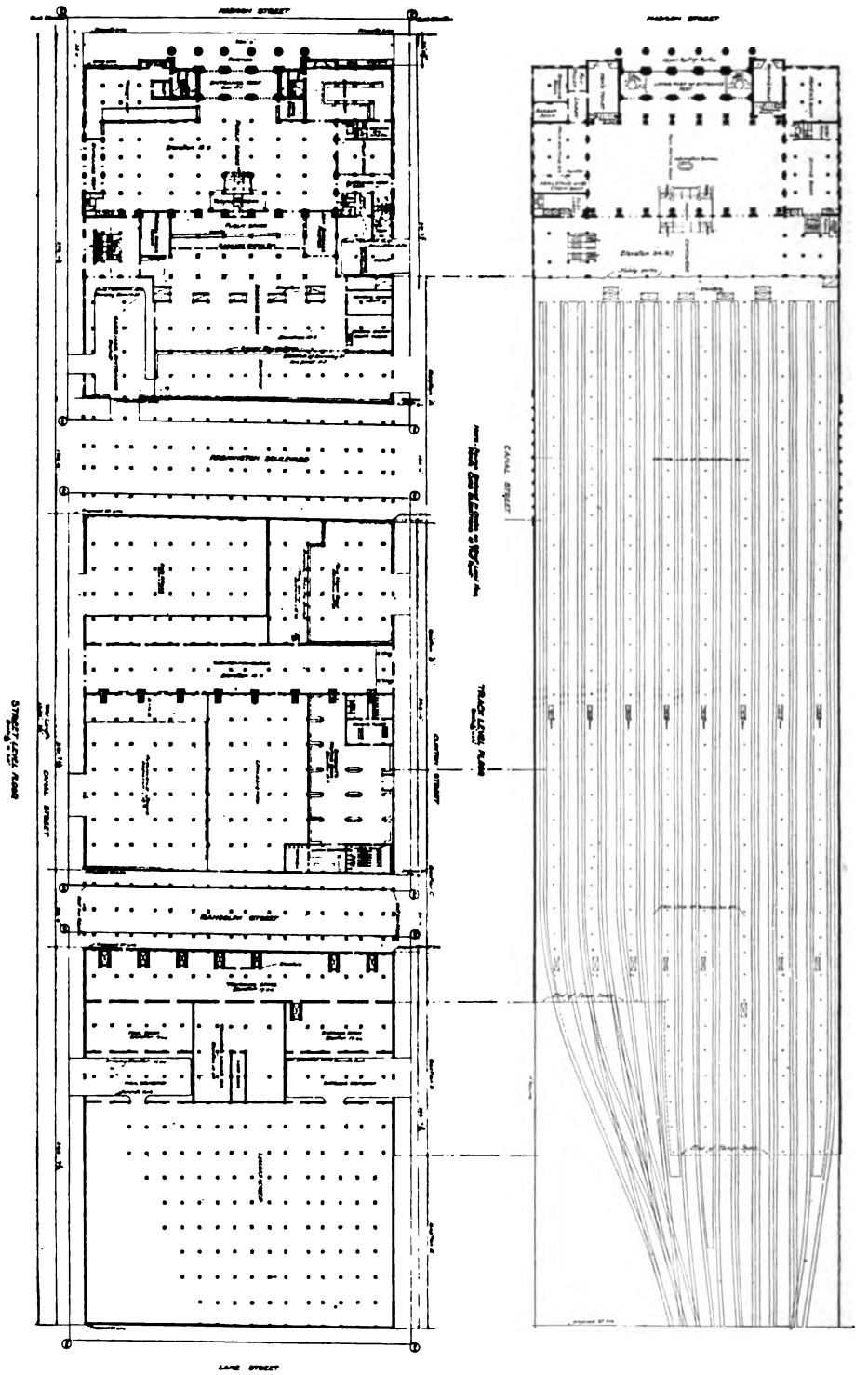
The New Chicago Terminal for The Chicago and Northwestern Railway

While getting ready for the Columbian Exposition, Chicago, for the first time, realized that the city was cut up in all directions by a network of railway tracks at street level and with characteristic energy began to take the necessary steps to eliminate all these danger spots. Since that time the work of track elevation has gone forward until to-day almost all the great railways entering the city come in on an elevation from twelve to fifteen feet above street level. This improvement has already involved an expenditure of very many millions of dollars, and still the work goes forward. Soon after the Chicago & Northwestern Railway Company began the work of elevating their tracks in the outlying districts, the management of the railway realized that the location of their present terminal at Wells and Kinzie Streets was in no way adequate to their present needs, and gave no opportunity for future expansion, and they immediately began to search for a location which would allow them to build a terminal station which would not only supply their wants for many years to come, but would also give to their patrons every possible convenience and at the same time be an ornament to the city.

After several years spent in carefully studying the question from every point of view, the railway company decided that Madison Street, from its natural position on the city map was bound to become more and more the great artery of the city east and west. The difficulties of crossing the river convinced them that their great terminal had best be located on what is known as the West Side, but as near the central portion of the city as possible. The result of this investigation was the purchase for the station and shed of the block of land bounded on the south by Madison, on the east by Canal, on the west by Clinton and on the north by Lake Streets. This decision, of course, involved the purchase of additional property north and west of the proposed station for the elevation of all the tracks entering the Terminal. The station proper occupies the entire block between Canal and Clinton Streets, fronting south on Madison Street and is three hundred and twenty feet wide and two hundred and sixteen feet deep exclusive of the shed, which joins the head house and extends north along Canal and Clinton Streets approximately one thousand feet. The main building will be of grey Maine granite and the walls enclosing the shed will be of a mottled grey brick to match the granite as closely as possible with granite trimmings, such as base mouldings, string courses and cornice. Owing to the fact that Washington Boulevard, which is the first of the two streets crossed by the superstructure, belongs to and is a part of the Chicago Park System, the Park Commission demanded a special architectural handling of that part of the shed crossing this boulevard so the bridge-like treatment of this crossing will be entirely of

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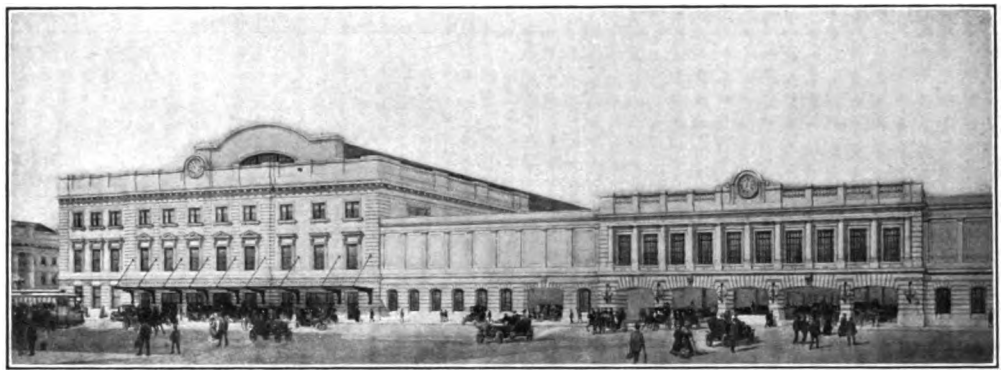
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THE NEW CHICAGO & NORTHWESTERN RAILWAY TERMINAL.—STREET LEVEL AND TRACK LEVEL PLANS.

Chicago, Ill. Frost & Granger, Architects.

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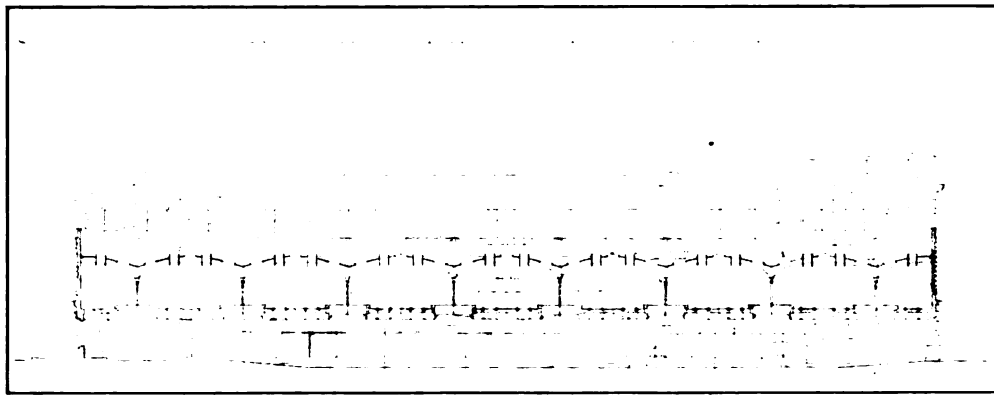
THE NEW CHICAGO & NORTHWESTERN RAILWAY TERMINAL—VIEW SHOWING THE WASHINGTON BOULEVARD PASSAGE ON THE RIGHT.

Chicago, Ill. Frost & Granger, Architects.

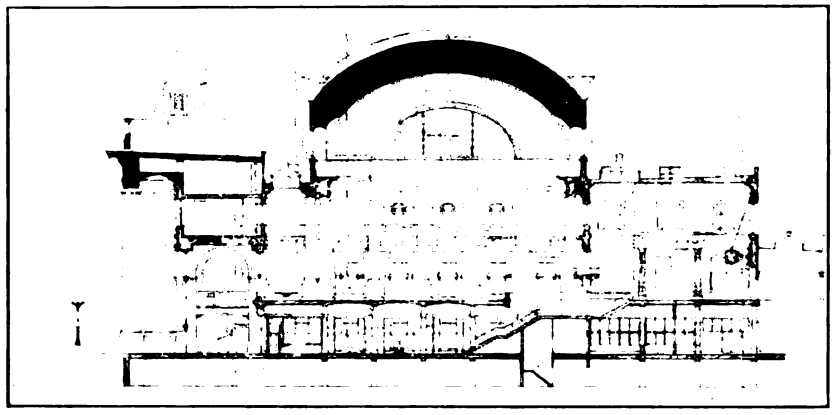
granite. In planning this station the aim of the railway company has been to in every way consider the comfort and convenience of the traveling public. As mentioned above, the main entrance is on Madison Street, where one enters under a granite colonnade, of which the columns, of the Roman Doric order, are seven feet in diameter at the base, while the shaft of each column from base to cap is sixty-one feet. Immediately back of this colonnade, entered by three great arches, is a vaulted vestibule, one hundred and thirty-two feet wide, twenty-two feet deep and forty feet high. The walls and ceiling vault of this vestibule are all of granite similar to the exterior of the building, and at each end of this main vestibule are broad granite stairways to the main waiting room on the track level floor. Similar vestibules, of slightly simpler architectural treatment, give entrance from Canal and Clinton Streets.

The public space for the circulation of travelers at the street level is two hundred by ninety-two feet. Opening from this central space and occupying an area of one hundred and fourteen by fifty-two feet, at the southwest corner of the building between the Madison and Canal Street vestibules, is the ticket office, while in the opposite or southwest corner between the Madison and Clinton Street vestibules is a lunch room eighty-five by fifty-two feet in size. Back of what is marked on the plan as "public space" are carriage approaches from Canal and Clinton Streets and Washington Boulevard and also the place for checking baggage. From the centre of the "public space" opposite the Madison Street entrance rises a marble stairway twenty-six feet in width and leading directly to the train concourse and also to the main waiting room. On the track level floor is located the main waiting room two hundred by one hundred feet in size and eighty-five feet high. At the East end of this waiting room and really a part of it is another more retired waiting room fifty-six by seventy-two feet in size and twenty-five feet high. From this more retired end of the main waiting room open the smoking room, barber shop and men's toilet rooms; the newsstand and parcel check-room are located at the northeast corner of the main room. At the opposite end of the main waiting room are located a dining room fifty-six by seventy feet and the women's retiring rooms. Several novel features have been introduced in connection with the women's department. In the mezzanine floor extending over the dining room and women's room are to be found a tea room and rest rooms for women; also a children's room for the convenience of small people who may have to wait several hours between through trains. Skilled trained nurses will always be in attendance in this department. All of these secondary rooms for women open on to an attractive gallery, where women and children may sit in quiet and seclusion and look down upon the constantly passing crowds in the waiting room be-

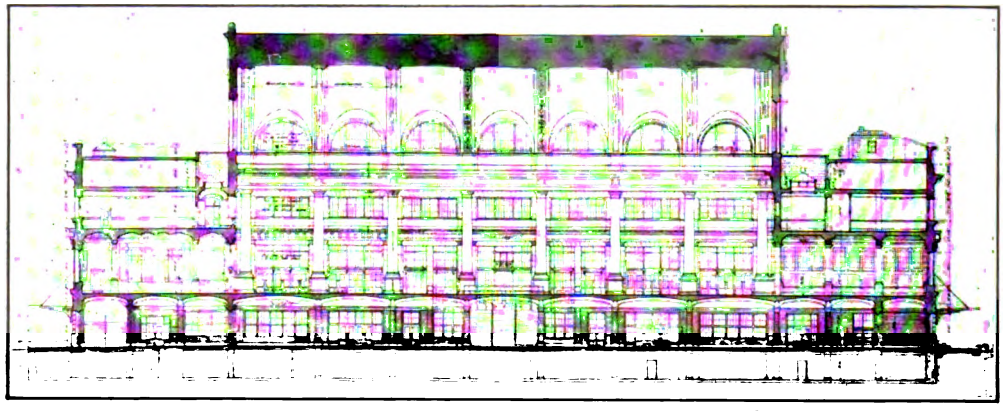
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Section Through Trainsheds.



Transverse Section Through Waiting Room and Concourse.



Longitudinal Section Through Waiting Room.

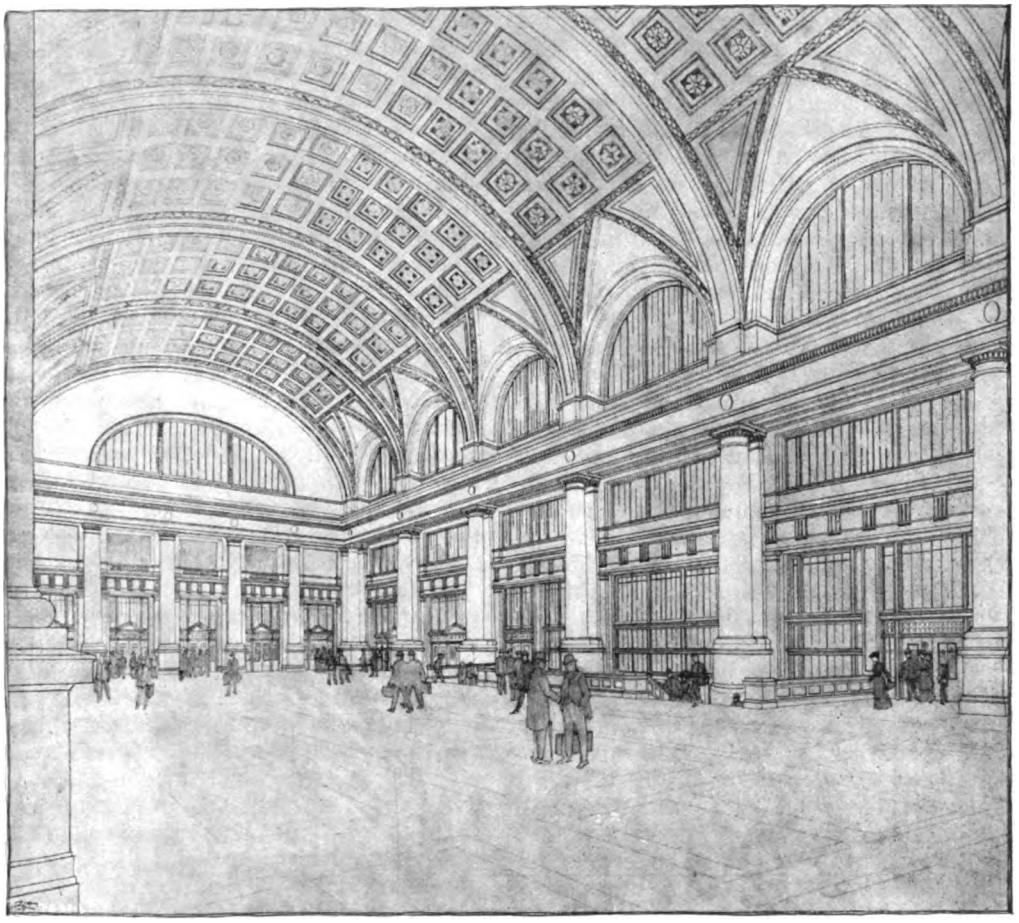
THE NEW CHICAGO & NORTHWESTERN RAILWAY TERMINAL.

Chicago, Ill. Frost & Granger, Architects.

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low. The suburban business of the Northwestern, always large, has in the past few years increased by leaps and bounds owing to the almost phenomenal growth of Chicago's suburbs. The rest of the mezzanine floor is given up to bath and dressing rooms for men.

These dressing rooms are planned to accommodate "commuters" who come into town in the morning with the intention of remaining through the evening. Suit cases can be checked on arrival and later in the afternoon their owners can comfortably bathe and dress at the station in private rooms and either dine there in the large dining room off the waiting room, which will be as well appointed as any first-class restaurant, and then attend the theatre or else dine out with none of the bother of picking up baggage at different places. Between the main waiting room and the trains is the concourse three hundred and sixteen feet long and sixty feet wide with ample stairways giving on to Canal and Clinton Streets at either end and with the main stairway to Madison Street in the centre. This concourse is to be entirely enclosed in glass on four sides, the pilasters between the great glass openings and all the architectural features being covered with tile of a delicate color, all capitals and molded courses being of terra cotta of a dull satin finish to harmonize



PERSPECTIVE VIEW OF MAIN WAITING ROOM—THE CHICAGO & NORTHWESTERN RAILWAY TERMINAL.

Chicago, Ill. Frost & Granger, Architects.

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with the tiled walls in color. Stretching away to the north for a thousand feet is the train shed, which will be low and of the Bush type with open slots above the centre of each track to carry all smoke and gases from the locomotives directly out of doors.

The remaining space in the upper stories of the main building will be used as offices for the officials connected with the management of the station.

This brief description of the building between Madison Street and Washington Boulevard is plainly illustrated by the two plans accompanying this paper. If a family arrive at the Madison Street entrance, the man can send his wife and children direct to the main waiting room by either of the stairways at the ends of the main vestibule. On entering the public space he purchases his tickets at the ticket office in the southeast corner, crosses the public space and checks his baggage in the large room for that purpose directly opposite the ticket office, sends a telegram, if necessary, in either of the offices at the foot of the main stairway and mounting this stairway rejoins his family in the main waiting room, having taken the fewest possible number of steps, or, if tickets, etc., have already been attended to, he crosses the public space and goes directly to his train. It is calculated that two hundred and fifty thousand people daily can easily circulate between trains and streets without inconveniencing each other.

North of Washington Boulevard the space on the street level below the tracks is to be used as stands for cabs and automobiles, for handling emigrants for whose use large and convenient quarters are provided along Clinton Street and for a suburban concourse. This suburban concourse is a space sixty feet wide and three hundred and twenty feet long, situated halfway between Washington Boulevard and Randolph Street, with stairways to each of the sixteen tracks above. The walls will be lined with delicately colored dull enamel brick embellished with terra-cotta architectural treatment around the doors and windows, and it is felt that this concourse will be a great convenience to all passengers going to or coming from localities north of Washington Boulevard. The space under the tracks between this concourse and Randolph Street and North of Randolph Street is given up to the handling and distribution of baggage, mail and express. All outgoing baggage is to be received in the large baggage room, 184x 200 feet, situated just south of Washington Boulevard and distributed by elevators and subways to the large elevators located between each track north of Randolph Street. North of Lake Street the railway company will erect a large power plant of their own, which will be part of the general architectural group. In the basement under the main station are located the kitchens, butcher shop, store and refrigerator rooms, also locker rooms for male and female employees, with rest rooms attached. All of these basement rooms will be thoroughly lighted, heated and ventilated by power furnished from the company's own plant.

From this brief description and the accompanying illustrations one can get an idea of the thought which has controlled the planning of the entire scheme, namely the handling of large crowds of people with the greatest possible comfort and convenience for each individual. The same illustrations give a very adequate idea of the architectural treatment of the whole. The exterior material, as mentioned above, is a light grey Maine granite. The style of the building is a free use of early Italian Renaissance with a lofty Doric portico on Madison Street to indicate the entrance to a great city. The length of this portico with its flanking pavilions is coincident with and expresses on the exterior the length of the main waiting room whose roof, covered with a dull red shingle tile, rises above all the rest of the structure. The pavilions at the ends of the entrance portico are crowned with low clock towers surmounted by domes, all of granite. The walls of the large "public space" on the street level floor are to be lined with a delicately tinted dull-finished tile, all columns, mouldings and architectural features being of dull finished terra cotta. The ceiling of this "public space" will be arched tile construction of a tone to

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harmonize with the walls and columns. The lunch room will be wainscoted with Verde Antique marble with plaster panels above, the Canal and Clinton Street entrances with tile to the height of ceilings. All walls of the room for checking baggage and carriage and automobile approaches and the subways at Washington Boulevard and Randolph and Lake Streets will be lined with enamel brick of a delicate fawn color.

The main waiting room on the track level floor, which is the principal architectural feature of the station, will be treated like a great Roman atrium with a barrel vault roof. The pilasters and entire order up to the spring of the vault are to be dull finished light pink Tennessee marble. All columns standing free will be of Greek Cippolino marble, whose delicate green hue will harmonize perfectly with the greenish bronze of the metal work framing the glass between the pilasters. At first thought the idea of the architects was to treat the barrel vault of the ceiling in plaster richly coffered and ornamented, but after carefully considering the difficulty of keeping such decoration clean in a smoky commercial city it was decided to abandon this treatment and build the vault of ornamental tile construction, with richly ornamented ribs of terra cotta of a color to harmonize with the marble of the walls. This great waiting room is directly lighted by two semi-elliptical windows sixty feet in diameter at either end of the vault and by ten semi-circular lunettes piercing the vault, five on each side. The lesser waiting room at the east of this main room is to be finished in similar manner and is lighted directly by three large windows giving on to Canal Street.

The furniture of these waiting rooms, and in fact all public rooms, will be of Mexican mahogany. The benches will be lighted by handsome standard lamps, while the vault illumination will be by a row of incandescent lamps concealed in the cornice. The spring of the vault in the main waiting room is fifty-two feet from the floor and the crown of the vault eighty-five feet. At the West end of the main waiting room is the dining room, wainscoted with Verde Antique marble to the height of the window stools. The walls are divided into panels by fluted pilasters of the Ionic order. It is intended to have the space between these pilasters richly decorated by some noted mural painter. The ceiling of this room will also be richly decorated. The women's room and smoking room will have marble wainscoting with decorated panels above and beamed and coffered ceilings.

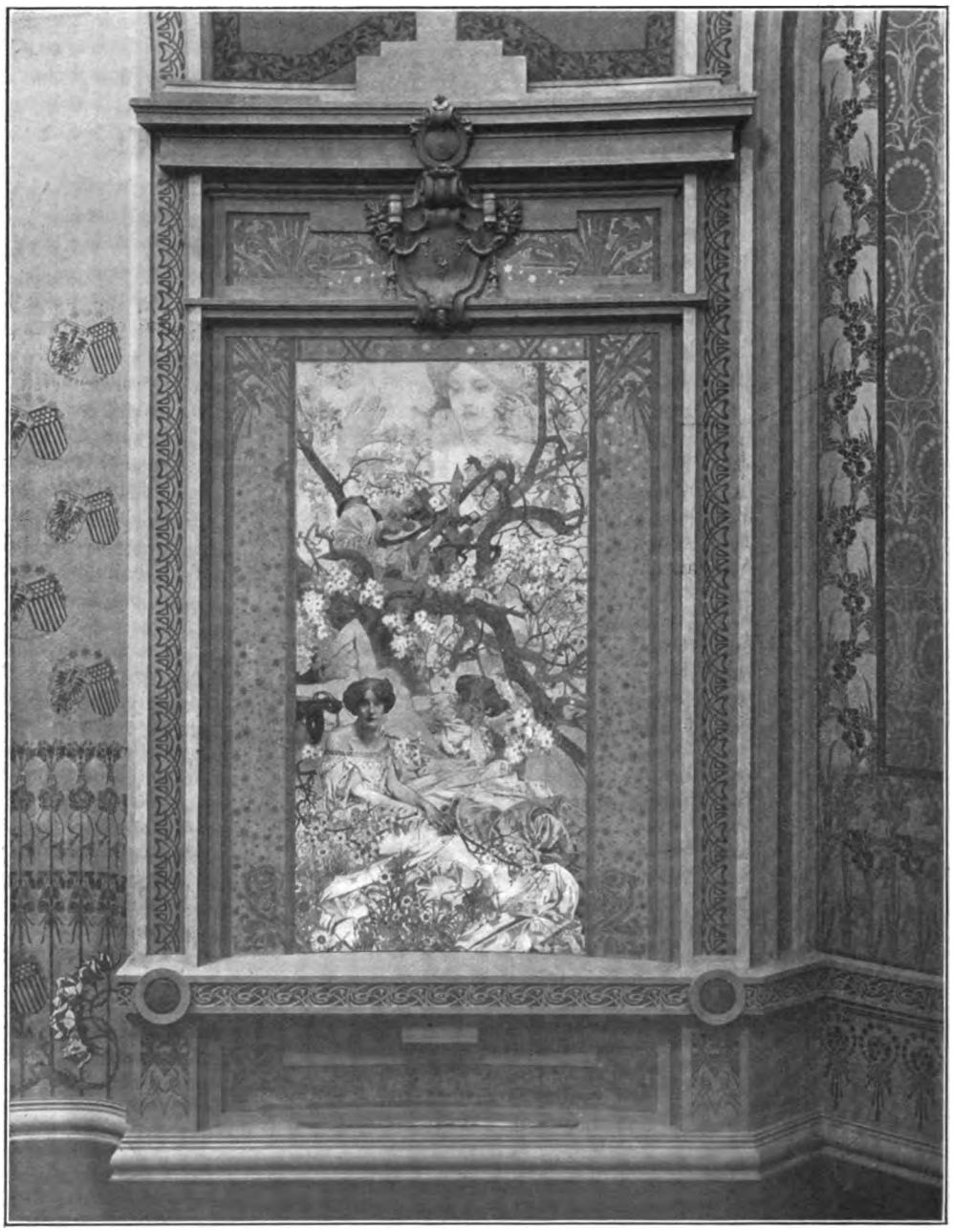
In the tea room on the mezzanine floor a special feature will be made of the wainscoting, which will be of tile to the height of the doors crowned with a decorative tile frieze in color, with a moss green tile floor. All secondary rooms, such as toilet rooms, barber shop, baths, etc., and all corridors in the office portion will have high marble wainscottings and all floors throughout the station will be either of marble or tile to harmonize in each case with the color of the walls.

For fuller comprehension of the architectural scheme the writer depends upon the illustrations accompanying this paper, the arrangement and number of tracks in the train-shed and the location of the baggage elevators being plainly shown on the plan. At present there are seventy-eight through trains and two hundred and twenty suburban trains daily entering and departing from the train-shed, and in planning the structure sufficient space has been provided not only for present needs, but for the demands of the future.

It will readily be seen that it has been the constant effort of both the railway company and the architects to build a station which would primarily handle all the terminal business of a vast railway system while furnishing every convenience to the traveling pubic and at the same time presenting to the city a building which would express its purpose in such a manner as to be a credit not only to the municipality but also to the corporation for which it stands.

Alfred Hoyt Granger.

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THE NEW GERMAN THEATRE—DECORATIVE PANEL, "COMEDY."

Madison Avenue and 59th Street, New York.

Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.
Decorations by Alfons Mucha.

(Photo by A. Patzig.)

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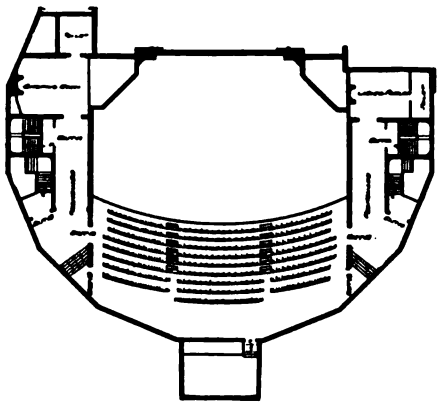
The German Theatre in New York

The building of a theatre is, without doubt, one of the most difficult problems which falls to the lot of the architect of today, and there is perhaps no class of buildings which has undergone a more complete transformation in planning, designing and decorative treatment. There has been a steady tendency, as conditions of civilization became more and more complex, to confine the artistic freedom of the theatre and to stultify its purpose. In the Greek and Roman times the building of a theatre was an act of public importance and to be classed only with the erection of a temple. The theatre in those epochs was a structure more closely allied to and dependent upon its natural surroundings than any other form of structure. It was designed with the highest prevailing motives of architectural art, in the conspicuous location deserving of a public monument. It was open to the view of the spectator on all sides and to the audience it was a colossal outdoor room built of the most permanent materials in the best possible manner, a structure of which the background was Nature and the ceiling the Heavens.

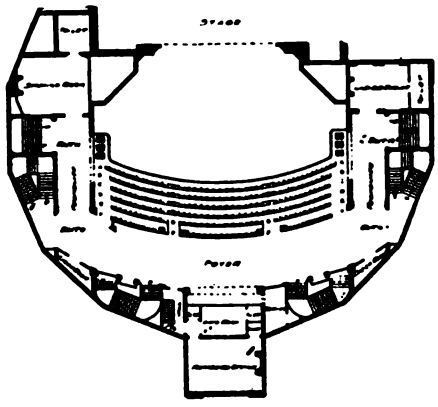
But gradually all this has been changed; the theatre of today has so little in common with its distinguished prototype that to a Greek or a Roman it would be practically unrecognizable. In the first place it has changed from a public monument to an enterprise undertaken solely for private gain. It is no longer a free-standing open-air enclosed space, but a stuffy, indoor room which is in America often so inconspicuous outwardly as not to exist at all to the passerby. All he sees is a door, an entrance, which is scarcely as large as the entrances to some of our great commercial buildings. Nor is the interior more inviting, the first impression being one of confinement and restriction, on entering he traverses a series of narrow canyons which conduct to a funnel-shaped space, the auditorium. Where to an ancient every seat was a passage, it is now but an almost impassable barrier which restricts movement and imperils safety in case of fire. The air which he breathes is no longer that to which an outdoor life has accustomed him, but an induced draft supplied by mechanical means, and at times as pure as the air in a public sewer. Where formerly everyone had very nearly an equal opportunity to see, hear and breathe, these privileges are now proportioned as they are paid for. Convenience also is doled out accordingly. The poor man must mount many stairs and be content to walk around to the back-alley to purchase this right and gain admittance to his seat. The responsibility of the theatre management generally extends to the amount of the spectator's ticket. The responsibility for his personal safety devolves upon himself and the fire department.

The modern development of theatre building is of course reasonable in general and well founded in many respects; the solution of the problem which modern architects have reached, while in no sense as admirable for our purpose as that of classic times was for theirs, is the result of such a complex set of conditions that only the heartiest cooperation of all the interests concerned will make for improvement. Of course, the greatest obstacle to progress in any reform of theatre building that might be proposed is the attitude of those who make possible the erection of such buildings. Assuming that a majority of American theatre managers were willing to bow to the superior technical knowledge which they do not and cannot themselves possess, and were willing to concede the necessity of something more than an often perfunctory compliance with present building regulations the matter of legislation to govern the important questions of proper planning, watching and inspection and fire-resisting construction would be con-

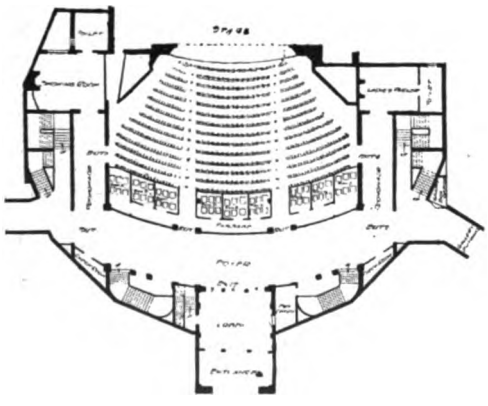
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Gallery Plan.



Balcony Plan.



Orchestra Plan.

THE NEW GERMAN THEATRE.

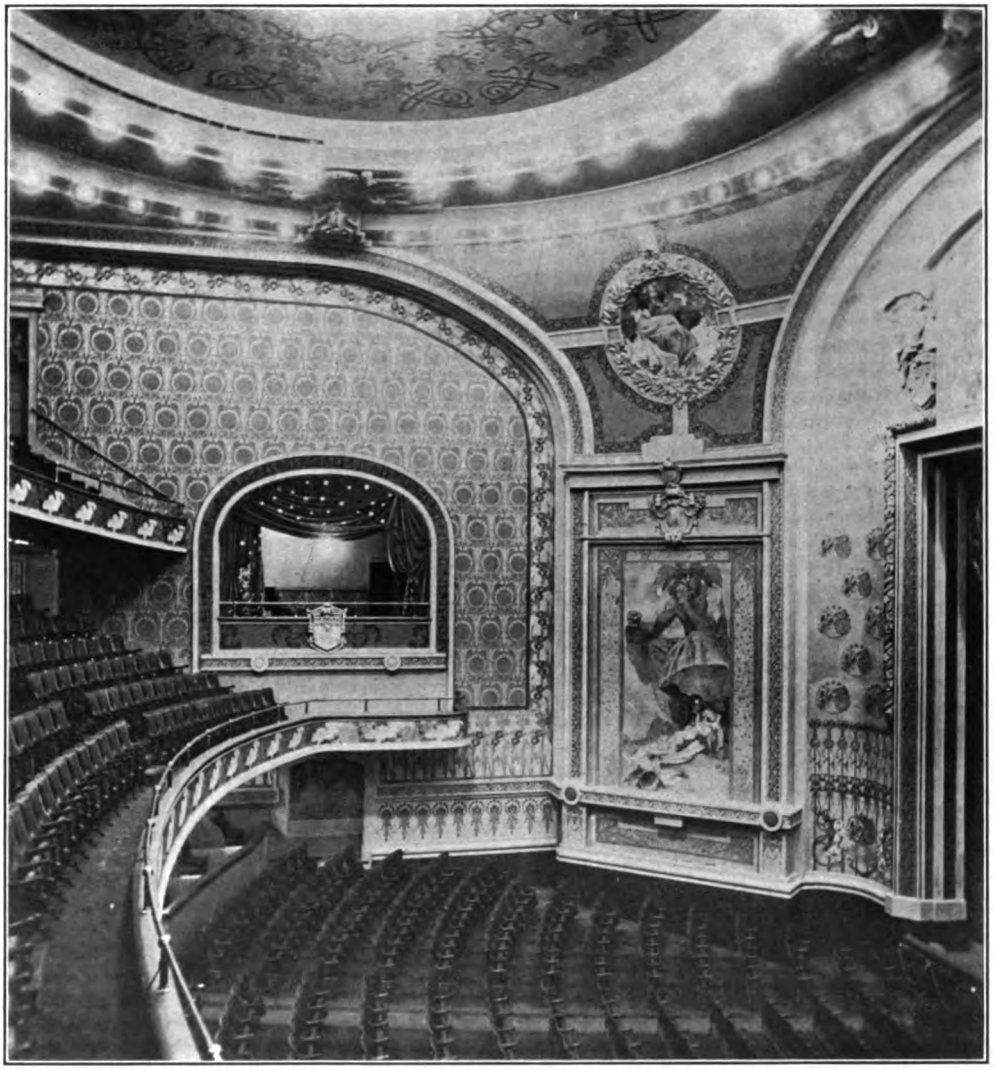
Madison Avenue and 59th Street, New York.
Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.

verted from well nigh an impossibility, as it is at present, to a very simple operation. Such other considerations as a reliable emergency lighting system and proper and safe ventilation would naturally come in for attention. The practical requirements of the safety and convenience of the theatre being in that way definitely fixed by law, the artistic questions would undoubtedly find speedy solutions. Too much must not be expected of the architect in theatre designing until he is placed in a fairer professional position. If now and then he succeeds in persuading a theatre manager in allowing him to design with a little ampler provision for safety than the law absolutely prescribes, that architect deserves no particular credit for having done a good piece of work except the credit of being true to his professional ideals; and the client is to be commended for being just a little more reasonable and responsible to the thousands of people for whose safety his direction plays the all-important part. With such a manager the case is at least hopeful, and with a capable architect, is subject to further improvement, for, after all, that theatre manager is bound to discover that it has actually paid him to allow that his architect was in a better position to handle the building of his theatre than he. The box office receipts will show that. The greater latitude in planning which the architect in such a case enjoys cannot fail, if he be the capable man, to redound to the benefit of the general attractiveness of the house. And this again is an asset for the manager, assuring him of a good and steady patronage.

A good example of an exceptional opportunity for an architect to do the right thing in designing a theatre is illustrated by the plans and photographs of the German Theatre which are shown herewith. In the first place, it might be assumed that the fact that this is not a new building would have militate against the architects' opportunity. Not so, for the problem presented was that of constructing in a space which had formerly accommodated twenty-

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five hundred persons an auditorium which need seat but one thousand. The Lenox Lyceum, which was the name by which the old auditorium was known to New Yorkers, was built about twenty-five years ago to seat an audience of twenty-five hundred. It was polygonal in plan, one hundred thirty-seven feet in diameter, covered with a conical roof seventy feet high and had a small stage on the east. The present auditorium has been set inside of this space, of which the polygonal outline is still to be seen in the plans. Forty feet was cut off on the rear or east to form the depth of the stage. A proscenium opening of thirty-five feet being desired by the management, the side walls of the auditorium could not, for optical reasons, be located more than seventy-five

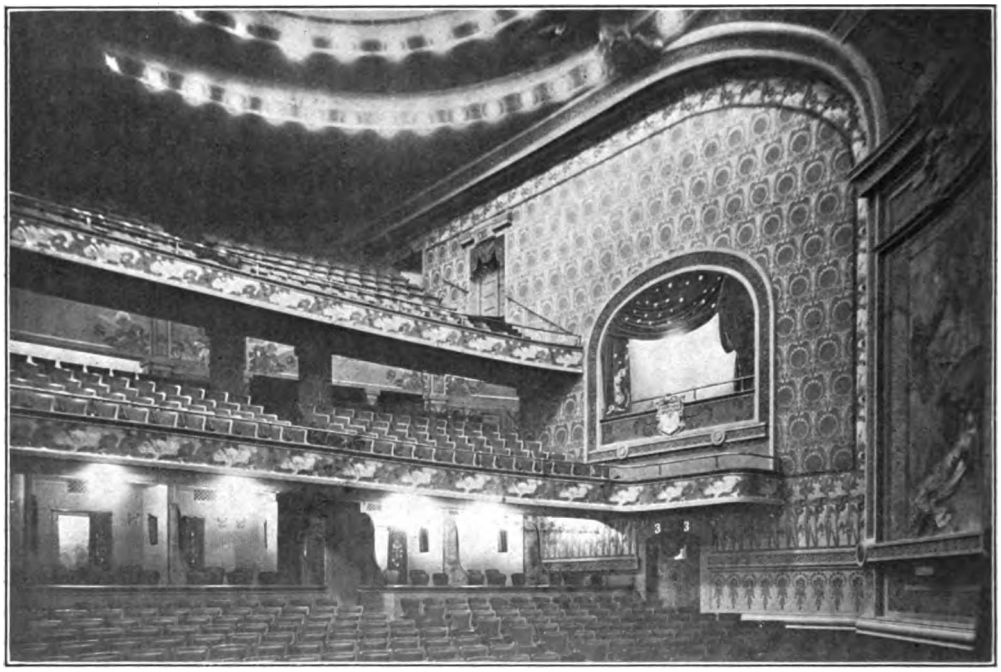


THE NEW GERMAN THEATRE—VIEW ACROSS THE AUDITORIUM.
Madison Avenue and 59th Street, New York.
Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.
Decorations by Alfons Mucha.
(Photo by A. Patzig.)

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feet apart. The portion of the polygon that was accordingly left was devoted to foyers, passages, staircases, retiring rooms and other accessories. And it is in the large amount of space that was thus left over to be assigned to these features that the architects' opportunity materialized, resulting in the amplest provision for the safety of the audience in providing wide promenades on all three tiers in connection with abundant exits which may be used at all times, an admirable feature in a theatre plan and which thus does away with emergency exits so often neglected and responsible for so much loss of life in recent theatre fires. The foyers and promenades are alone ample to permit the entire audience to walk comfortably about during intermissions. So abundant are the provisions for the comfort of the audience both for walking about and for enjoying the comforts of commodious seats, that, on each tier have been provided a roomy and inviting ladies' parlor on the right of the auditorium and a smoking room on the left, almost unique features in an American theatre.

But perhaps the most interesting innovation in planning the auditorium is the absence of proscenium boxes. Here we have a successful solution of the practice so common in modern European theatres, of placing the boxes at the rear of the orchestra and slightly elevated above it. It might be assumed that this location for the highest-priced places in the house would not allow their occupants to see and hear as well as if they were in the usual place at the side of the proscenium. As a matter of fact, any theatre-goer who is really interested more in the performance than in talking to his friends during the performance knows from experience that proscenium boxes are not desirable points of vantage from which to witness a play. The substitution of decorative panels certainly replaces the box



THE NEW GERMAN THEATRE—VIEW OF GALLERIES FROM THE STAGE.
Madison Avenue and 59th Street, New York.
Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.
Decorations by Alfons Mucha.
(Photo by A. Patzig.)

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feature to the decided artistic advantage of the auditorium as an apartment. Proscenium boxes are at best a disturbing element in the decorative composition.

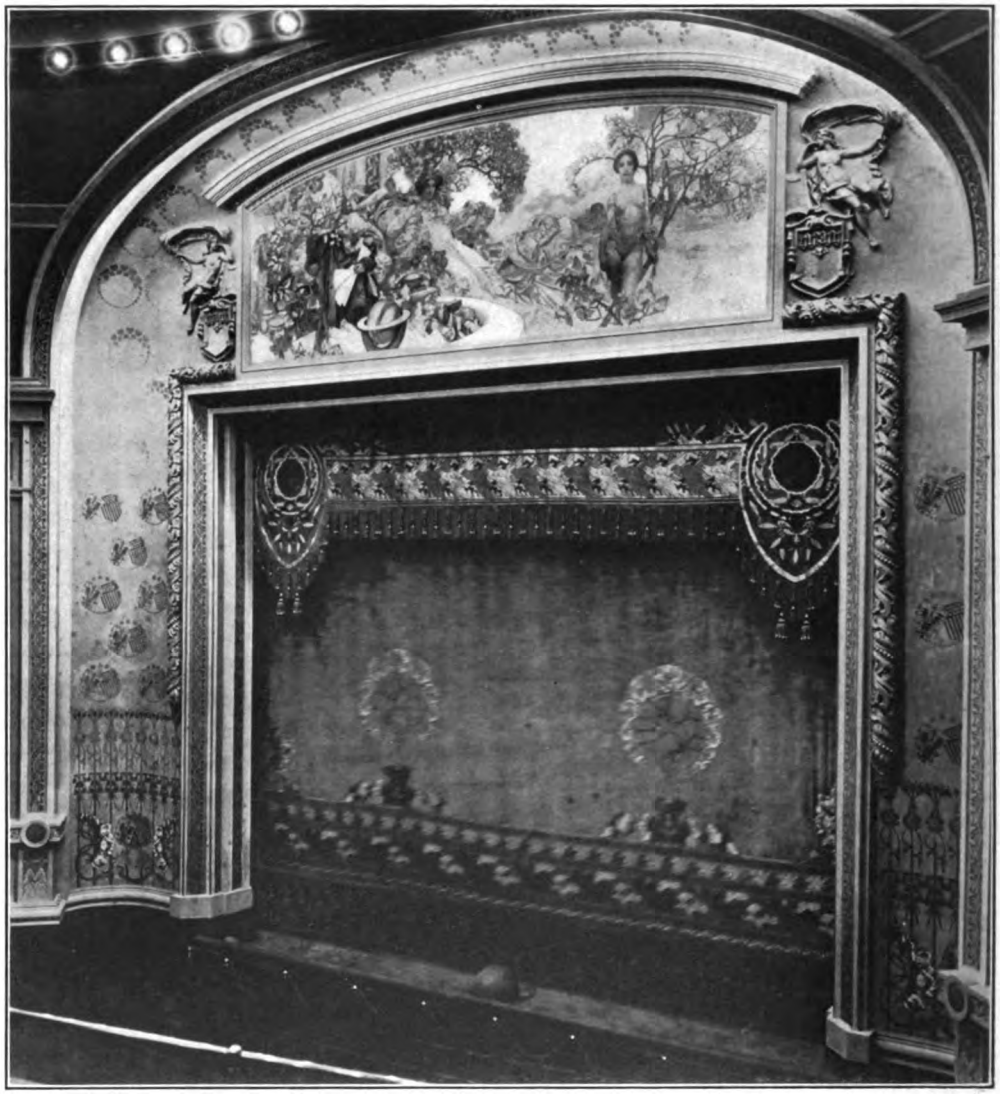


NEW GERMAN THEATRE—VIEW FROM PROMENADE AT THE SIDES OF THE BALCONY.
Madison Avenue and 59th Street, New York.
Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.
Decorations by Alfons Mucha.
(Photo by A. Patzig.)

The most striking impression that one gets of the German Theatre is produced by the fact that the decoration of the entire house seems to hang together remarkably well, in short to possess a coherent scheme. One misses with extreme pleasure the prolific Roccoco plaster ornament and the lurid painty expressions of the contractor-decorator. This individual, whose efforts are so plentiful in American buildings and es-

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pecially in our theatre auditoriums, clearly had nothing to do with designing the exceptional decorative treatment of this room. Here we have the case, were not munificent, but he has, by working closely with the architects, produced something worth the while for the money expended. The



THE NEW GERMAN THEATRE—THE PROSCENIUM OPENING, SHOWING ALSO THE DECORATIVE PANEL, "THE QUEST FOR BEAUTY."

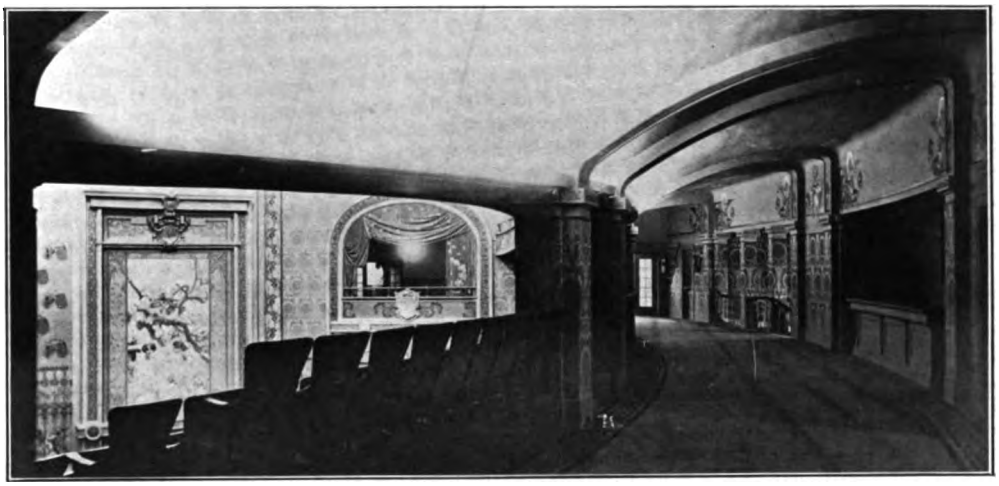
Madison Avenue and 59th Street, New York. Herts & Tallant, Supervising Architects. Hedman & Schoen, Associated. Decorations by Alfons Mucha.

(Photo by A. Patzig.)

hand of the artist, and not less his co-operation with the architect. To be sure, the means at the disposal of M. Alfons Mucha, who was the artist in basis of the decoration is, of course, as it should be, the architecture of the interior. Continuing then the description of the construction given of the audi-

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torium, it must be explained that the architects were enabled, by using the roof construction of the old Lenox Lyceum, to create the structure of the decorative scheme which was employed. As the new stage goes up considerably higher than the old conical roof of the Lyceum, it was necessary to cut off those parts of the steel roof trusses which would have projected into the stage-loft to interfere with the placing and operation of the scenery. This operation presented the delicate problem of restoring the equilibrium of the entire roof, which had accordingly to be tied and supported by two huge connected trusses ten feet in depth and spanning the interval between the side walls of the auditorium in the middle of the space. These new trusses with the old ones are thus made to act as the supports for a flat, oval dome with pendentives at the sides of the proscenium opening where the boxes would ordinarily be. This, then, was the starting point for the decorator. It is not worth while to describe in detail the color scheme in which M. Mucha has seen fit to express his ideas of what the decoration of a German theatre in New York should be. Suffice it to point out the consistency of the general tonal composition. For the background of the highly illuminated parts of the house a light tan or ecru is used with darker shades of the same color on the receding surfaces of the decorated plaster work. Stencil patterns relieve the monotony of the large surfaces. Those portions of the auditorium which are less brilliantly illuminated, the promenades, foyers and the under sides of the galleries are treated in delicate and restful greens, producing additional depth, viewed from the auditorium. There are



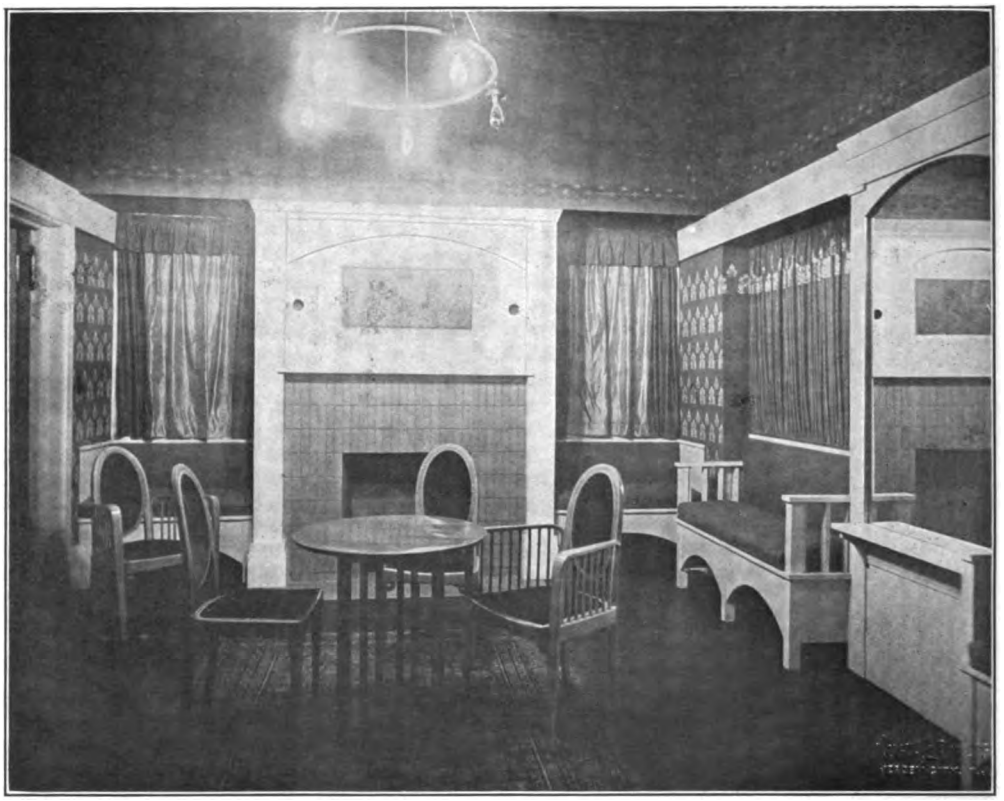
PROMENADE AT THE BACK OF THE BALCONY—THE NEW GERMAN THEATRE.
Madison Avenue and 59th Street, New York.
Herts & Tallant, Supervising Architects.
Hedman & Schoen, Associated.
Decorations by Alfons Mucha.
(Photo by A. Patzig.)

five large decorative pieces, two on each side of the proscenium arch and one above it. To the right there is a panel portraying "Comedy," with a medallion in the pendentives above, emblematic of "The American Girl"; to the left are the counterparts, "Tragedy," with its medallion, "The German Girl," while over the opening is "The Quest for Beauty." These pictures are remarkable for their effectiveness as parts of the decorative scheme, though they, no doubt, contain much admirable detail that cannot be fully appreciated from their exalted positions. It is the freshness of the stencil patterns with their weird form-

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combinations of plant and animal inspiration that finally gives character to the apartment. Remark, for instance, how cleverly the border of the curtain has been echoed in the border decorations of the side walls and galleries. The curtain is itself a remarkable piece of work, having been executed by a class of young women from the New York School of Applied Design for Women, under M. Mucha's direction. This is said to be the first piece of textile work of such extent to be executed by American women and its successful completion points to a new field of endeavor for women in the American arts and crafts.

H. W. Frohne.



THE NEW GERMAN THEATRE—ONE OF THE LADIES' PARLORS AT THE RIGHT OF THE STAGE.

Madison Avenue and 59th Street, New York. Herts & Tallant, Supervising Architects. Hedman & Schoen, Associated. Decorations by Alfons Mucha.

(Photo by A. Patzig.)

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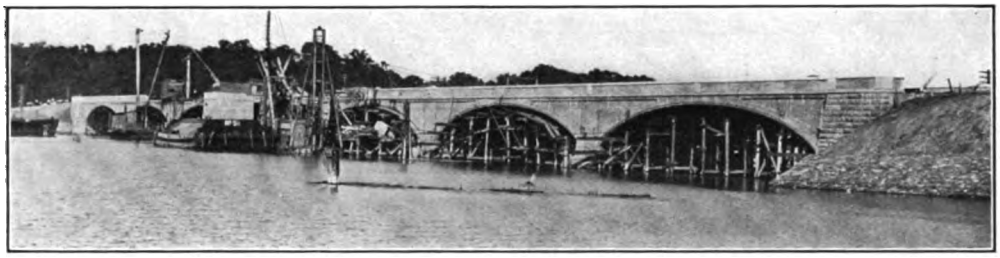


FIG. 1. PELHAM BRIDGE.
Pelham Bay Park, New York City. Palmer & Hornbostel, Architects.

Along the "Harlem River Branch"

There are few more interesting environs of New York than the southern part, fronting on the Sound, of the southward-narrowing peninsula which terminates in the long, slender protrusion of Manhattan Island. It is now part of the "Borough of the Bronx" politically. Historically and geographically, it still belongs to Westchester, and, indeed, includes the now suburban village specifically so-called, and, to the common Manhattanese apprehension, so equally divided in interest between the church and the world, between the "Catholic Protectory" and the dilapidating relics of the Morris Park race course. How many kinds of interest it has! It is interesting by nature to the sensitive in spite of its absence of any topographical "features"—for there is nothing in it that can decently be called a hill. It is as topographically uneventful as the outskirts of Chicago. Of those outskirts, by the way, I recall a cheerful tale of John Wellborn Root's, of the days just after the fire, when an enthusiastic realty promoter staked out a claim of building lots which he called "Washington Heights," if I remember aright, and, when he had got a track laid out to it, invited select Chicagoans to go out on a special train "for to see." Arrived there, he delivered a lecture on the unique natural advantages of his "terrain." "Gentlemen, we have come up so gradually that you may not have noticed it; but I assure you that the spot on which we stand is twenty-seven feet above the level of the Lake." A spot twenty-seven feet above the level of the Sound, on this shore of the Westchester peninsula, would be an almost equal eminence. The peninsula in general is of the same flatness which prevails almost from the mouth of the Charles to the mouth of the James along our Atlantic coast. This expanse of Westchester, in particular, is our "fen country," recalling Carlyle's description of the English fen country on the East Coast, in which Cromwell and Tennyson were brought up: "The country hereabouts has all a clammy look, clayey and boggy; the produce of it, whether bushes and trees, or grass and crops, gives you the notion of something lazy, dropsical, gross." A church steeple, like that of St. Ives, which Carlyle is talking about, like that of St. Peter's, Westchester, in the American instance, assumes an almost Alpine importance in such a country. But whoso calls the country uninteresting because it is flat accuses his own insensibility. As Lowell has it about similar surroundings of his native Cambridge, in some of the best verse he ever wrote:—

"Dear marshes! Vain to him the gift of sight
Who cannot in their various incomes share."

On these flat and saline meadows, intersected by their frequent streams and estuaries, the landscape under sunlight, whether clear or clouded, gives you a new aspect every hour. And then the historical associations. Our country

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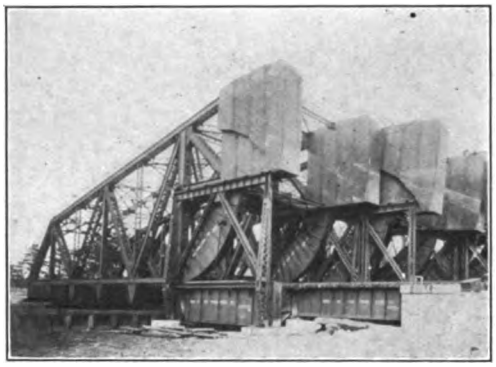


FIG. 2. THE "ROLLER LIFT" BRIDGE.
Bronx River, New York City.
Bridge Dept., N. Y., N. H. & H. R. R. Engrs.

has no more storied land. What a tempting article on the habitats of the old families of the Sound shore, on the Delanceys of Delancey's Neck in Mamaroneck, rechristened by some recent Vandal into "Orienta Point," on the Heathcotes of Heathcote Hall, Scarsdale, on the Morrises of Morrisania, on the Hunters of Hunter's Island, on the more recent comers the Lorillards, and so on. (The Hunters mansion and the Lorillards mansion, by the way, are now both within the precincts of Pelham Bay Park.) All Tories in Revolutionary times, and quite contented with their lot under Church and King. Hence the "debatable land," hence Cooper's "Spy" and Mr. Robert Chambers' more recent Revolutionary tale. And what another good article on the historic parishes of Westchester, of which there are still some architectural remains. Could not one perhaps make the dry bones of the esteemed Bolton, in his "The Church in Westchester County" to live?

"But that is another story." In fact, two other stories. In the meantime, the things one sees from the Harlem River Branch which most interest him are of the barest and baldest utility, always excluding the Pelham Bay Park, the reservation of which is one of the wisest the Manhattanese municipality ever made, and which denotes a concession to those lovers of nature who do not require of her her more sensational aspects.

Excluding the Pelham Bay Park, but eminently including the "Branch" itself. It is a full generation, probably more, since the New Haven road, yielding to the necessity of carrying its passengers into the heart of Manhattan the most direct way, yet perceived the advantage of an outlet and inlet for its freight upon the nearest waterfront, and built "the Branch" from New Rochelle, some twelve miles southwestward, to the Harlem River to secure that advantage. The passenger traffic has always hitherto been entirely incidental. As a passenger road, the Branch has thus far been "unique" in the sense that the New Yorker admitted Boston to be unique, deriving the adjective from "unus, one, equus, horse." But perhaps on that very account of its being a byway and not a highway, the Branch has always been the favorite mode of transportation of those terminal New Rochellers whose time was of minor importance to their money, as well as to the riparian villagers whose only link with the outer world, before the coming of the trolley, the Branch was. It is an immensely more interesting route than the straight way through the walls of the Fordham cut and the darkness of the Harlem Tunnel.

But now all this is changing. From an episodical little country road, the Harlem River Branch is to be made the sole route of the great New Haven system for freight, and apparently also for passenger service, though this lat-

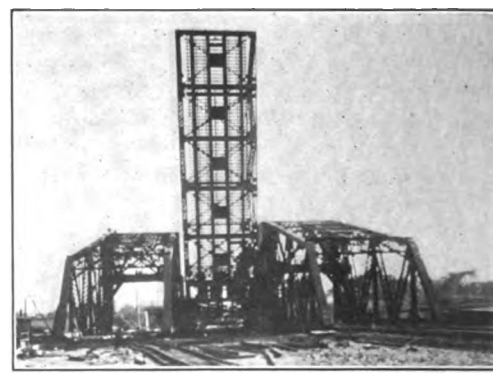


FIG. 3. THE "ROLLER LIFT" IN ACTION.

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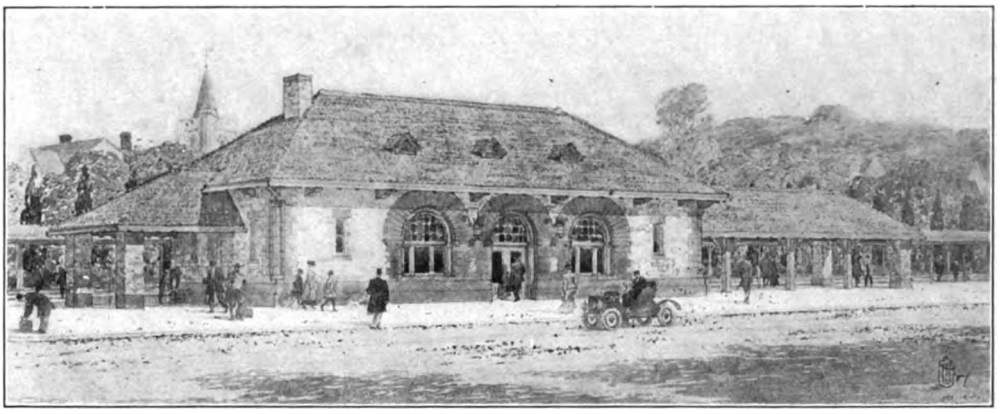


FIG. 4. STATION AT WEST FARMS.
West Farms, New York City. Cass Gilbert, Architect.

ter purpose is not yet avowed. The work that has been going on for these months, evidently at a cost of millions, though the cost also is not published, will transform the Branch into a six-tracked railroad, running on its own level all the way, which is to say obviating all grade crossings, and forming a great trunk line. This is the familiar experience of American roads, beginning with a single track through the wilderness or the rural solitude, and gradually making betterments as they can be paid for out of earnings, until the road comes up to the standard of the European lines which were monumentally conceived in the first instance. There were none of the engineering difficulties of a hilly and rocky country to be surmounted here, no trouble about curves and none about grades, except such as were inherent in the project of avoiding grade crossings. But the engineers had their own troubles all the same. These arose from the "dropsical" or estuarian character of the terrain, traversed and intersected by so many water courses, and requiring not only much bridging, but the provision of suitable foundations for the "abutments" or retaining walls which shut the right of way from the adjoining country. It is related, for instance, that at one point, after the "fill" had been started, "the weight of deposited materials squeezed out the

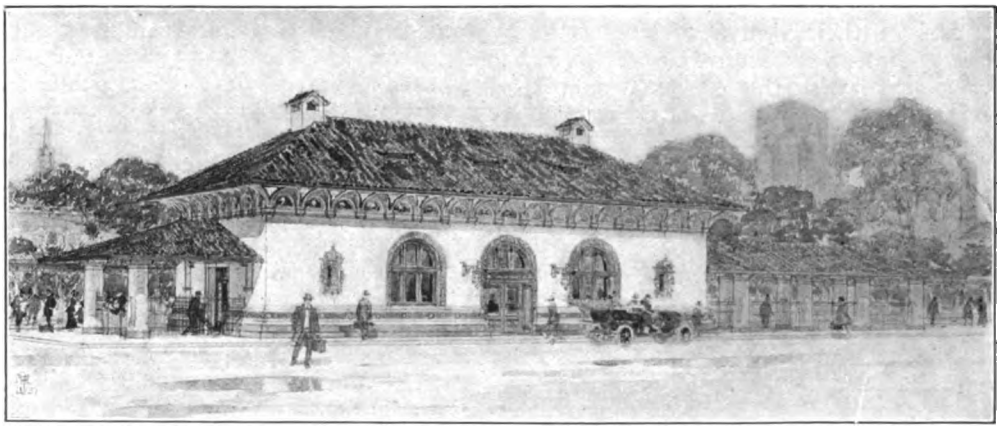


FIG. 5. STATION AT WESTCHESTER.
Westchester, New York City. Cass Gilbert, Architect.

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muck on either side into humps and ridges five and six feet high." A great part of the structure of the road, bed and all, stands on piles, driven through the ooze. The Pelham Bay drawbridge is the centre of a "pile-bent trestle 1,600 feet long," rising through the mud and water of "the sludgy, squdgy creek." Plenty of trouble was provided for the engineers. The abutments, being merely retaining walls, and retaining walls of concrete, cannot exhibit even the moderate degree of interest which attaches to a well-bonded wall of masonry. They are mere inexpressive expensive expanses of smooth smears, deprived of the expressiveness which comes of articulation, but having the impressiveness which comes of their evident costliness and thoroughness, an impressiveness which they share with the very station platforms, even where the stations themselves as yet are not, and giving equally the sense that a great work has been worthily carried out, regardless of expense. Within the limits of Pelham Bay Park, by the way, the abutments have the interest which belongs to jointed and bonded masonry, the city authorities, within these limits, vetoing the use of concrete. One cannot help thinking that it had been well if the city authorities had taken their own prescription, and ordained masonry for their own Pelham Bay Bridge (Fig. 1). Because this bridge, though not visible from the parkway which crosses it, is highly obvious from both sides, and particularly from the railroad side. It ought to have been an impressive structure if it had been conceived and constructed in masonry by the same architects who have been instructed or permitted to carry it out in "reinforced concrete." This very fashionable and much vaunted method of construction is here, no doubt, intelligently applied, that is to say, with the minimum of material and the utmost diminution of the areas of the points of support. In masonry, in concrete unreinforced, one cannot help perceiving that this would be "too thin," too slender in the piers, too flat in the arches, to be admissible even as a "tour de force," or rather as a "tour de manque de force." It is unduly thinned and unduly flattened by means of the concealed "reinforcement." Which is to say that the construction is open to the same objections which lie against the steel frame construction for buildings, and, therefore, "tolerari potest" for utilitarian purposes, but inadmissible for monumental purposes, among which surely seems to be the purpose of a park bridge. The details, as one would expect, are successfully studied. The apparently ultimate abutments, assuming their rough faces to be of actual masonry, give satisfactory evi-

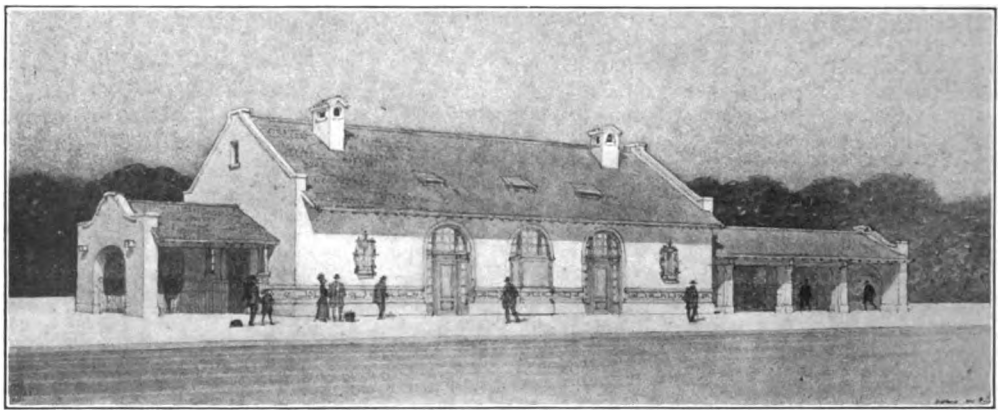


FIG. 6. STATION AT BAYCHESTER.
Baychester, New York City. Cass Gilbert, Architect.

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FIG. 7. STATION AT VAN NEST.
Van Nest, New York City. Cass Gilbert, Architect.

dence of resistance. But these things are largely vitiated if not wholly nullified by the contradiction in the spectator's mind of the aspect of the actual construction with what he is justified in expecting of the apparent construction. Incomparably more impressive, and because so much more articulately expressive, are the purely utilitarian "bascules" of the "roller lift" bridges of the railroad itself, in undisguised and unreinforced and articulated skeletons of metal (Fig. 2). The potential energy of the bascules, even when "hushed in grim repose," is almost as forcible in its aspect as the developed energy of the single bascule in action, heaving up perpendicular its five great panels, and bearing with it aloft its load of two railroad tracks (Fig. 3). The swinging draw, however well designed, can hardly give such impression of sheer power. The "unconscious art" of the engineer is here seen at very nearly its best.

The only examples of conscious art which the actual "improvement" offer are the stations. No doubt the authorities of the road are fortunate in having secured Mr. Cass Gilbert to do their stations for them. The designer has evidently enough taken the actual requirements as the basis of his designs, and followed them loyally. For most of the stations an identical plan "imposes itself." It is notable that this is



FIG. 8. STATION AT PORT MORRIS.
Port Morris, New York City. Cass Gilbert, Architect.

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the same plan which Richardson found imposed upon himself, when, thirty years ago, when the demand for artistic railroad stations was much feebler than it is now, and the supply of them correspondingly meagre, he began, on the Boston & Albany and the Old Colony, to make such notable additions to the then short list of them. It is a single room, lighted by a triplet of big openings on each side with the simplest and least broken pyramid of roof vigorously and umbrageously projected at the eaves for a shelter to the platform. In the station at West Farms (Fig. 4) even Richardson's favorite material, the gray rubble wall with wrought work of dark freestone, reappears, and, with the "eyebrows" in the roof might easily make this pass as an example of that master's work. But even a common "pattern" imposed by the conditions of the problem may and must be so varied in the detail as to invest each building constructed according to it, with its own interest. Thus the station at Westchester (Fig. 5) is covered with plaster instead of rubble, with the greater elegance of detail invited and enabled by the material, the stations at Baychester (Fig. 6) and Van Nest (Fig. 7) show roofs gabled instead of hipped, while possibly the Dutch name of the latter suggested the Dutch brickwork, the Dutch crowstepping of the gables and the Dutch treatment of detail. All these, it will be agreed, are appropriate, artistic and picturesque. It is unfortunate that, as they as yet exist only in posse, the aspect of them can be judged only from perspectives in water color, which do not photograph well. The superior importance it must be of the station at Port Morris (Fig. 8), which has expanded it laterally into five windows instead of three, and vertically into two stories instead of one. But the expansion, it will be agreed, has entailed its disadvantages. The importance and pretentiousness involve a loss of the unaffected picturesqueness of the humbler erections. One can imagine the stray artist on the Branch stopping to sketch the others, but hardly this. The rapid kodak will suffice. But then the requirements vary, requirements not only material but architectural necessities of situation and surrounding which, upon an artist, are equally imposed. Pelham Manor station (Fig. 9), which one has the pleasure of finding in a sufficient state of forwardness to be photographed from the fact and not from an imaginary perspective, is at present in an environment not only suburban, but sylvan. Long may it remain so. It is not fantastic to hope that the design of the station, to conform to the existing surroundings, may help to keep it so. At any rate, nothing could be more in conformity with the surroundings as they are than this rough, low, square tower, this expanse of the simplest possible rough stone wall, this covering of heavy and deeply corrugated tiles, extending over but not overweighing the terminal sheltering sheds. The thing is a particular pleasure to behold. Not by any means so much the regular thing in picturesqueness are the stations at Westchester Avenue (Fig. 10), presented in a photograph of the perspective, and that at Hunt's Point (Fig. 11), presented in a photograph of the accomplished or the nearly accomplished fact. For, by a rational compliance with the circumstances of the case, these stations are stood upon the girders which cross the sunken tracks. The suburban picturesqueness of the stations at Baychester and Van Nest is as unattainable in these as the sylvan picturesqueness of the station at Pelham Manor. For those things at least stand upon the ground and have foundations. These are visibly supported upon and incorporated with the metallic structure of a railway, and the design of them is modified accordingly. Observe how in the station at Hunt's Point, the tower at the end, which "hath foundations," is differentiated in design from the bridge of the station which is in effect a frame building standing on a frame, a contrast which is also observable in the station at Westchester Avenue. In the former case, as is evident in execution, panels of plastered brick are enclosed in

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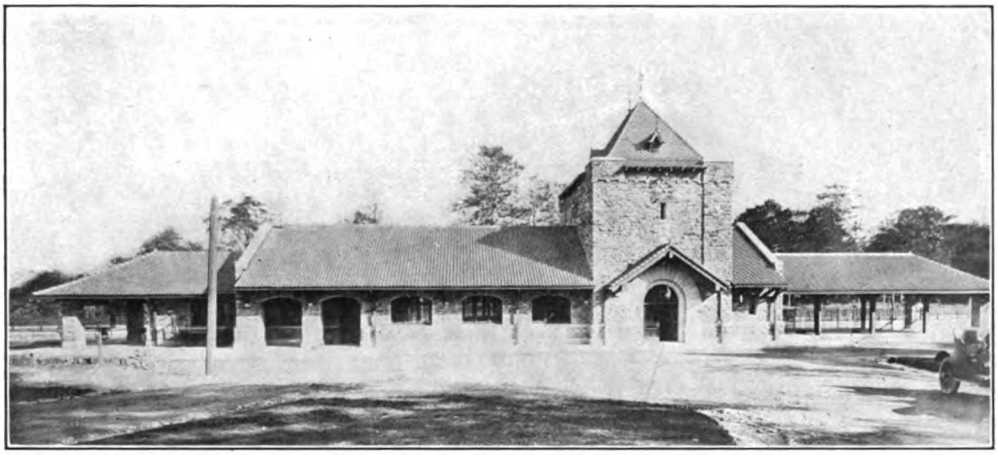


FIG. 9. STATION AT PELHAM MANOR.
Pelham Manor, New York. Cass Gilbert, Architect.

frames faced with decorative tiling. But here one must really interpose a caveat. When I first saw the station at Hunt's Point in process of construction, the rough brickwork of the panels was left uncovered, though it was plain from the exposed ducts of terra cotta that traversed it, that it was meant to be covered. It will never look so well again, the exposed brickwork having a homely and vernacular attractiveness which its envelope cannot possibly equal. I persuade myself that, if the architect had seen it at that stage, he would have cancelled his contract for cement and confined his efforts to making the brickwork presentable. It is the same case as that of that big provisional building in "Vanderbilt Square," if that be the name of it, just west of the Grand Central Station. Before the brickwork of the arches and mouldings had been smeared over that building, its rough brickwork with its huge and powerful recessed openings had a character and a picturesquesness which it has now utterly lost, and which, left the architect, who insisted on concealing it, in the paradoical position of appearing to be the only spectator who was obtuse to the charm of his own work. Nobody is going to

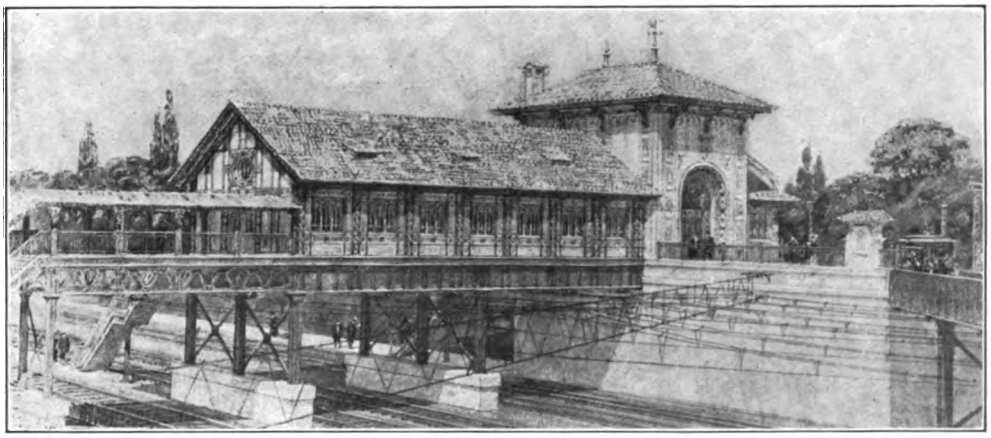


FIG. 10. STATION AT WESTCHESTER AVENUE.
New York City. Cass Gilbert, Architect.

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impute insensibility to Mr. Gilbert. But I do wish he had had the chance of seeing the effect of his brick panels before they were coated. In spite of this detail, and of other shortcomings, if such there be or be to be, the stations of the Branch are "great fun." When they are done, they promise to be well worth a leisurely trip up and down the Branch, if it were only for the satisfaction of studying them.

Not that there are not other things to repay such a journey. Our suburban architecture is seen to very nearly its best advantage in the communities to which the Branch gives access. But not much of it is visible from the train, partly because suburban residences naturally withdraw themselves from the immediate neighborhood of the tracks, partly because of the separate level of the tracks of the Branch throughout so great a part of their extent. What can be seen from the tracks are favorable specimens of our utilitarian architecture, commercial and industrial. "Establishments" have concentrated themselves in great force down near the Harlem River, where access to the waterfront as well as to the railroad is, with cheapness of land, a prime consideration. You get sight of the utilitarian building even before you cross the river and from the shores of Manhattan itself. At Third Avenue and 129th Street, for example, there is a structure built as a "car barn" for the Third Avenue surface road, which is a prepossessing example of its class (Fig. 12). Presumably, and from its resemblance to other works of his, it is from the designs of Mr. Wagner, at one time the architect of the road, and especially of the rear structure, on Second Avenue, of the "depot" at Sixty-fifth Street. It is, upon the whole, a rather exemplary instance of the treatment of such a structure with the view of giving expression to its necessary members, and making it presentable while stopping short of any attempt to make it decorative. The fortification of the terminal pavilions by standing them upon bases of solid brickwork, while the curtain walls between them are carried upon light metallic posts, ensuring the ample openings necessary for a "car barn," is effective. It would have been still more effective if piers of brickwork had been substituted for the posts. And surely the solid corners might have been intrusted to their own brickwork and the superfluous posts omitted to advantage at these points.

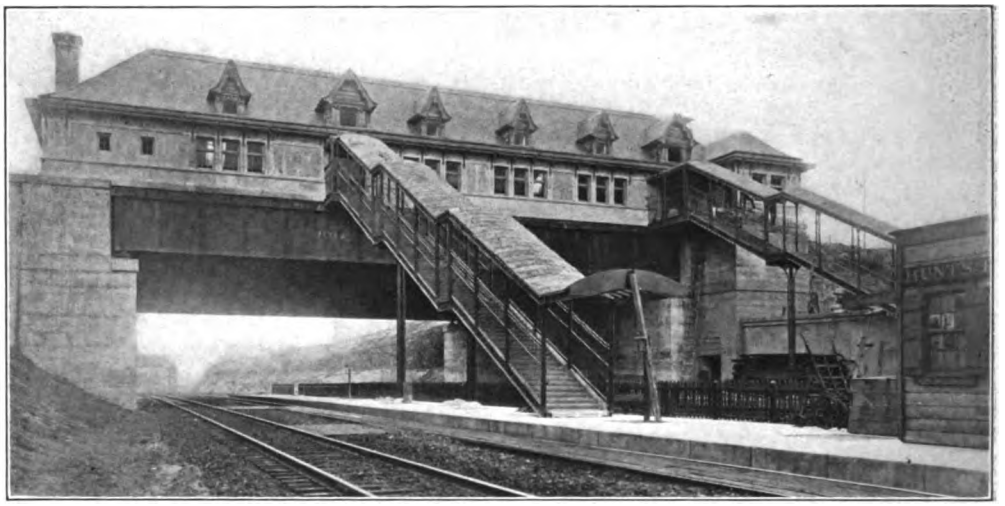


FIG. 11. STATION AT HUNT'S POINT.
Hunt's Point, New York City. Cass Gilbert, Architect.

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FIG. 12. CAR BARN OF THE NEW YORK CITY RAILWAY CO.
Madison Avenue and 129th Street, New York.

The crowning battlements of these pavilions and of the centre of the avenue front are also objectionable as "making architecture." Otherwise the treatment is exemplary. The brick buttressing and the iron anchors, the detail of the brickwork throughout, these things are discreetly done, and effectually relieve what otherwise would be the baldness and monotony of such a structure without at all compromising the strict utilitarianism of its aspect.

After one leaves the river on the Branch, he sees even more noteworthy examples than those of industrial architecture, examples with which he cannot help being impressed in the same way in which he is impressed by the roller lift bridges. "Is it not the true expression of brutal energy?" asks Viollet le Duc, concerning the locomotive. Is not the group of the works of the Delavergne Machine Company the true expression of huge modern workshop? A thing which is straightfor-

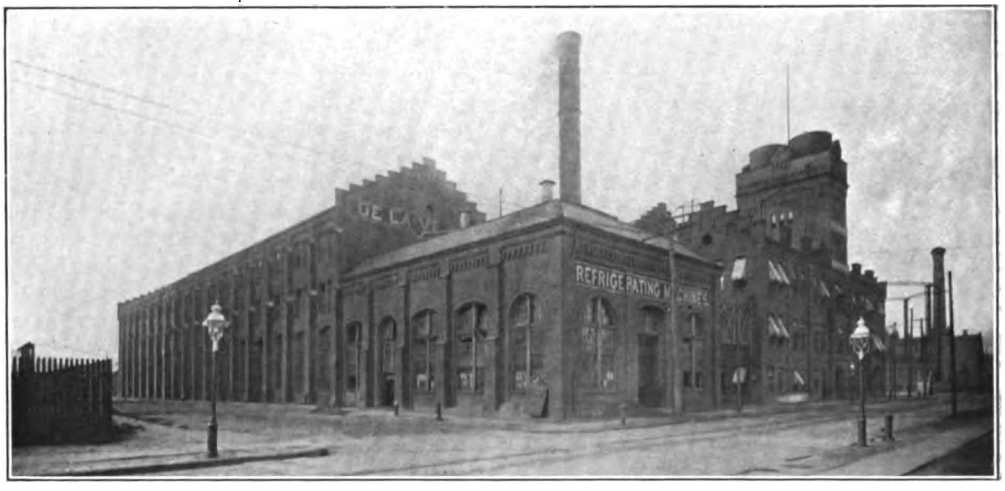


FIG. 13. DELAVERGNE MACHINE CO.'S WORKS.
Port Morris, New York City.

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wardly made for its purpose, with no extraneous additions, may be ugly perhaps. It surely cannot be vulgar. But to call the shops in the foreground of Fig. 13 even ugly were to do them an injustice. There is no conscious art about them, it is true. Apparently they are the work of an engineer unassisted by an architect. One is inclined to say, all the better for them. It would have been an architect in a thousand who could have done them any architectural good. The crowstepping of the gables, even, is not extrinsic, since in one way or another the wall must be coped, and this, with the picturesque effect of the notched triangle "thrown in," is probably the cheapest way of coping it; certainly the most direct as well as the most expressive. So with the cornices. So with the buttresses. They have an effect of inevitableness, of "just rightness" which an architect could not have improved, and would have been very lucky if he had not spoiled, while the perspective of the dwindling range of buttresses along the flank, which has an impressiveness as of a colonnade, is none the worse, if it be not all the better, for being an unintended and unforseen "byproduct." In the office building (Fig. 14) a somewhat higher architectural development than in the shops is quite permissible. In the flank of this office building it may be said that the development has been carried too far, though one's objection on that score is probably in fact an objection upon the score that it is not well enough done. This flank has good things in it, but there are too many of them. It is distinctly "thingy." The tall and narrow gabled bay, for instance, would much improve the aspect of the side by its absence. The steeper pitch of its gable and its general difference make its presence a most unneighborly intrusion, and recall the builders' vagaries in the early development of the West Side of Manhattan. On the other hand, the front is very good, not developed beyond the grimness of aspect proper to such an industrial establishment, not too "thingy" to be quiet, and effectively surmounted by the tower, which seems



FIG. 14. OFFICE BUILDING, DELAVERGNE MACHINE CO.
Port Morris, New York City.

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Fig. 15. Power House of the New York Central. Morris Dock, New York City.
Reed & Stem, Architects.

to exist in part to carry the two tanks. Nobody has yet succeeded in making an exposed tank architecturally attractive. It is rather high praise to say that these tanks are not repulsive.

Another industrial monster is the power house of the New York Central, rearing its great bulk solitary over the salt meadows and visible from afar. (Fig. 15). It is worthy of its conspicuousness. True, one does not see the point of the variation of material, in the yellow of the two huge chimneys or in the gables of shedded clerestories, from the red brick of the walls. The building would have been more effective in monochrome. But even as it is, it is highly effective. It owes its effectiveness, after magnitude, to the fenestration. The openings are well disposed throughout, and especially fortunate is the treatment of the corners as almost solid towers. The projecting central feature of the front, too, is excellently designed, carrying the assurance that it is a necessary and not a capricious projection, but wearing all the more on that account the forcible and vigorous aspect which assures the looker-on that it is in truth a "power house." If the designer had been inspired to leave his building "all red," he would have been entitled to unmixed as he is to hearty congratulations.

Not far above West Farms there is another power house, by no means so big or so conspicuous, very much simpler, but equally "showing its power" (Fig. 16). This is an effort of apparently unassisted engineering. But what architect will say it is the worse for that? Its design is dictated by the facts of the case. It is as it had to be. There is no superfluity, nothing but brick building reduced to its simplest expression. And yet in saying this one feels that he is doing injustice to the sensibility of the designer. Let us assume that the height and the taper of his chimney are regulated by formulas which he cannot but follow. But, even so, who told him how to carry the square of the base to the exact point at which it would come in most effectively with the "nave" of the works

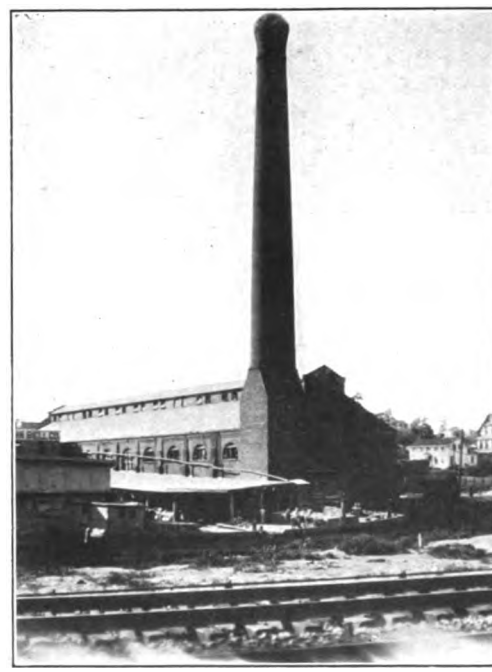


Fig. 16. Power House at West Farms.

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alongside of which it is the tower? How did he settle the sizes and shapes of his "squinches?" Who instructed him of the exact degree of angle at which the square of the base should be narrowed into the round of the shaft, the "spire" so as to make the transition most agreeable, or just how big should be the collar which marks the beginning of the spire? Or what should be the dimensions and proportions of the "tulip," as the artillerists call it, at the summit? (Here in fact one has to admit is a structurally superfluous member which is yet an architectural essential.) There can be no engineering formulas for these things. And yet it is upon the designer's intuition of them that it comes that his chimney is really an object of architecture, so much better worth looking at than most of the church steeples one sees which are so highly and consciously "architecturesque."

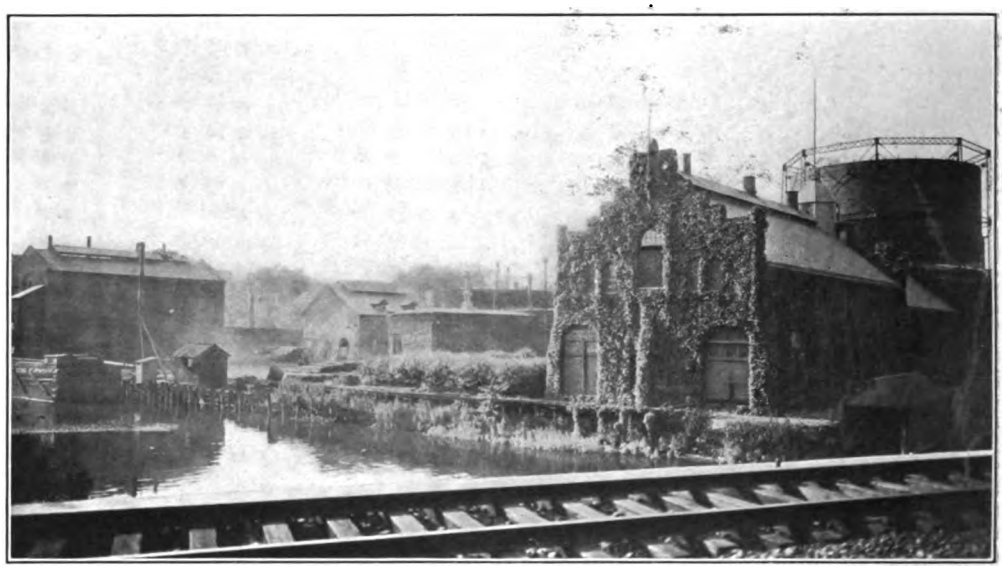


FIG. 17. GAS WORKS AT WEST FARMS.
West Farms, New York City.

Still above this are the gas works at West Farms (Fig. 17). One would not expect gas works to be picturesque objects. And yet one cannot deny picturesqueness to these. Neither can one help perceiving that here an architect has been at work, that this is not, like the last, an example of unassisted engineering. I wish I could find out the architect's name, for I would like to celebrate him. One may say that his work is too architecturesque, that it is "from the purpose" of purely utilitarian building. But one would have some difficulty in making that out. The detail is somewhat hidden in the photograph by the adventitious picturesqueness of the ampelopsis, which is for our purpose a pity, for it is well worth visibility. But the features can be made out. And which one of them is superfluous? The buttress at the centre of the front we may assume to have its purpose and its necessity. If you grant a crowstepped gable as a suitable coping, where are you to draw the line so as to exclude this development of the crowstepping to allow of the actual perforation of the wall at the heels of the gable and again at its summit? It seems legitimate and permissible, even in a building of so bald a utility. And certainly it is justified of its result in picturesqueness, and thus its own excuse for being. The very placing of the tank does what can be done to re-

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duce the repulsiveness of that intractable object. And no sensitive voyager along the Branch but must feel grateful to the artist who has given him something so well worth looking at.

In fact, this whole series strikes me as very exemplary. Here is a class of buildings from which architecture in the conventional sense is by common consent almost excluded. And yet how much better worth looking at they are than most buildings in which architecture in the conventional sense is not only permitted, but by common consent demanded. When the new stations are finished, the architectural pilgrim who gives a whole day to the Branch will find himself not only repaid but rewarded.



CHURCH OF STA. MARIA IN COSMEDIN—CAPITAL OF COLUMN OF THE NAVE.

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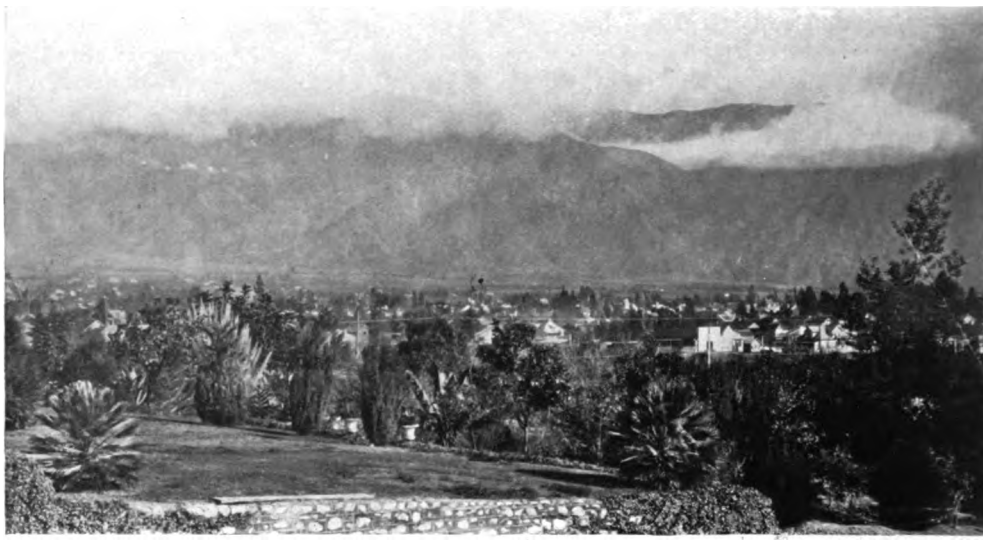


FIG. 1. LOOKING OVER PASADENA TO THE SIERRA MADRE.

Round About Los Angeles

It behooves one to begin by admitting that he will probably ruffle some Angelican susceptibilities. This is because the visit and the photographs on which these ensuing remarks are founded are nearly three years of age. And we all know how susceptible a "boom town" is upon that score. Mr. Hopkinson Smith has a delightful tale—which is tautological, all his tales being delightful—touchin' on and appertainin' to that susceptibility. It is a tale of the smoker of the Pullman in some Southern railroad train, wherein one of the fumifici was grievously boring the others in praise of his "home-town," Tuscaloosa, let us say, or Tallahassee, as "the most progressive community of the South." To whom one trampled worm, turning, —"Well, I have seen your town, and I don't think much of it." "When did you see it, suh?" "Oh, three weeks ago." "Three weeks ago! Oh, Sheol! You ought to see it NOW."

So the Angelican might say of these belated remarks and photographs and with so much the more reason by how much three years is a longer lapse of time than three weeks. He might, but I do not much think he will. In the first place, nobody who has crossed the Continent needs to be told that it is not on the Pacific Slope, but in the Middle West that the peculiar sectional touchiness which we have a right to call provincial has its habitat. The Californian does not trouble himself about the stranger's opinion. If his things are good enough for him, he holds that they are quite good enough either for the Easterner or for the Middle Westerner. I recall the remark of a St. Paul hackman twenty years ago, when the relations of the "twin cities" were especially tense. "Them folks up in Minneapolis are troublin' a good deal about us; but we ain't troublin' any about them." So the Californian might say about any "folks" at least on this side of the Rocky range. But in deference to the possible susceptibilities of the Angelican, I suppress my photographs of the "business centre" of Los Angeles, seeing that better and more important business buildings have no doubt been done since. But the other photographs seem too good and characteristic to be suppressed, even though there be three years of

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age. Most of them, I think, are still hitherto unpublished, and I got them by a stroke of luck unusual for so rapid a tourist as I was. Characteristic photographs of the local architecture were not to be had in the shops of the principal streets, still less in the hotels. But it is to the young lady who then presided over the newsstand of the Hotel Angelus and to whom I present my belated thanks, that I owed the information that there was an architectural photographer on an inconspicuous side street who



Fig. 2. The Bells of San Gabriel.

might possibly have what I wanted. He did.

Going about Southern California, one always finds reasons for being thankful that the "Greaser" preceded the "Gringo" in those parts. Here, as elsewhere, the Gringo, though he be the rawest product of his own region, cannot help regarding himself as an apostle of progress, and having no doubt that his irruption is "the march of civilization." One recalls what the Mexican paper said, that time we undertook the mission of civilizing Cuba. "What those Yankees mean by civilization is merely telephones and roll-top desks." To the Spanish American the coming of the American of the North is an invasion of the barbarians. And he has something to say for his contention. Compare the nomenclature of the Eastern slope of the Coast range, of which our countrymen were the original settlers, with that of the Western slope, settled long before them by Spaniards or their descendants. Leaving out the mellifluous and sonorous Spanish names of saints, compare Benicia and Sacramento with "Dutch Flat" and "Truckee." Clarence King used to point out, as the chief allurement of Mexico to his kind of Gringo, that 'there is no vulgarity in it." Architecturally, at any rate, the Spanish settlements shine by contrast with the American settlements. Few are the tears to be shed by the architectural pilgrim concerning the destruction of San Francisco, and those few are drawn by the fate of quite recent buildings, most of them inspired by Spanish precedents. It is within bounds, I think, to say that there was not a building over twenty years of age destroyed which any rational and disinterested person would have been sorry to see go. If things are much better with Los Angeles than with the more Northern settlement, that is in part because the general level of American architecture was far higher at the comparatively recent period of the American settlement than at the comparatively remote period of the Argonauts of the Golden Gate, the "forty-niners," and also in part because the Spanish settlement was so much more firmly rooted. Moreover, the "auri sacra fames," which was the motive to the settlement of San Francisco, is a much less likely source of good architecture than the desire on the part of cultivated and sensitive people for pleasant abodes, which has been the motive to the great growth within these last two decades of Los Angeles and its surroundings. Is there, indeed, a more delightful region in the world than this strip of subtropical garden between the mountains and the sea? Here, if anywhere, ought nature to shame building man out of his pretentiousness and vulgarity. The very photograph (Fig. 1)

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FIG. 3. ROMAN CATHOLIC CATHEDRAL, LOS ANGELES, CAL.

of the Southeastward view over Pasadena should impress upon the very "artchitect" the necessity of modesty and conformity. But the oldest building in these parts more expressly inculcates that lesson. How much, all along this Southern coast, do their successors owe the good Franciscans for their architectural example! And nowhere more than here. The mission of San Gabriel, eight miles from the "the Town of Our Lady the Queen of the Angels," is some ten years the senior of the town in its establishment, having been founded in 1770. The actual building, one supposes, though records are always wanting in these Spanish foundations, is at least as old as the settlement of the town (1781). The chimes of San Gabriel are celebrated in story, and for all I know in song. And the bell gable deserves to be celebrated architecturally. (Fig. 2.) Like the rest of the building to which it is attached it is the most straightforward fulfilment imaginable of the actual requirements of the case. Such a fulfilment may be ugly, but it cannot be vulgar. Vulgarity, in architecture at least, always connotes pretension, always involves that "addition of unnecessary features" in which Ruskin declares architecture to consist. In the present case, Ruskin would doubtless admit this gable to the category of architecture on the strength of the mouldings at the springing of the arches and the coping of the crowsteps, while the flank of the church which it terminates he would surely leave in the category of "building," at least if the pyramidal caps of the square buttresses and the moulding at the top of the wall were removed. But the work "architectural" by this hypothesis and non-architectural alike, is all so clearly of a piece as to make the hypothesis look rather absurd. The capitals of the buttresses and the projections of the eaves are necessary protections of pier and wall from the weather. Some sort of coping each must have. The only really "unnecessary features" are the mouldings of the bell-gable, which are not themselves necessary parts of the construction, but serve only to expound and emphasize the construction. But to say that, on this account, the gable is architecture and the flanking wall is not is to commit a manifest absurdity.

Legends have grown up about the bells themselves in this century and a quarter, attributing them to Spanish monasteries and what not, and investing them with romantic interest. Legends grow up with great rapidity among a sentimental population which cannot read and write. Some Yankee has been

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FIG. 4. ST. JOHN'S CHURCH, LOS ANGELES, CAL.

at the pains to dispel this particular romance by the simple process of climbing to the belfy and reading the inscriptions on the bells. Here they are:—

1 Ave Maria Santissima, S. Francisco. De Paula Ruelas me fecit.
2 Ave Maria, Sn. Fran. Nepomuseno Ruelas me fecit. A. D. '95.
3 Fecit Benitus a Regibus. Ano. D. 1830. Sn. Frano.
4 Cast by G. H. Holbrook, Medway, Mass., 1828.

That there have been bell founders in San Francisco all this time is obvious inference, whether or no it be the fact. But the legend of an European origin is destroyed by it. At any rate "G. H. Holbrook, Medway, Mass, 1828," is the very negation of Castilian romance.

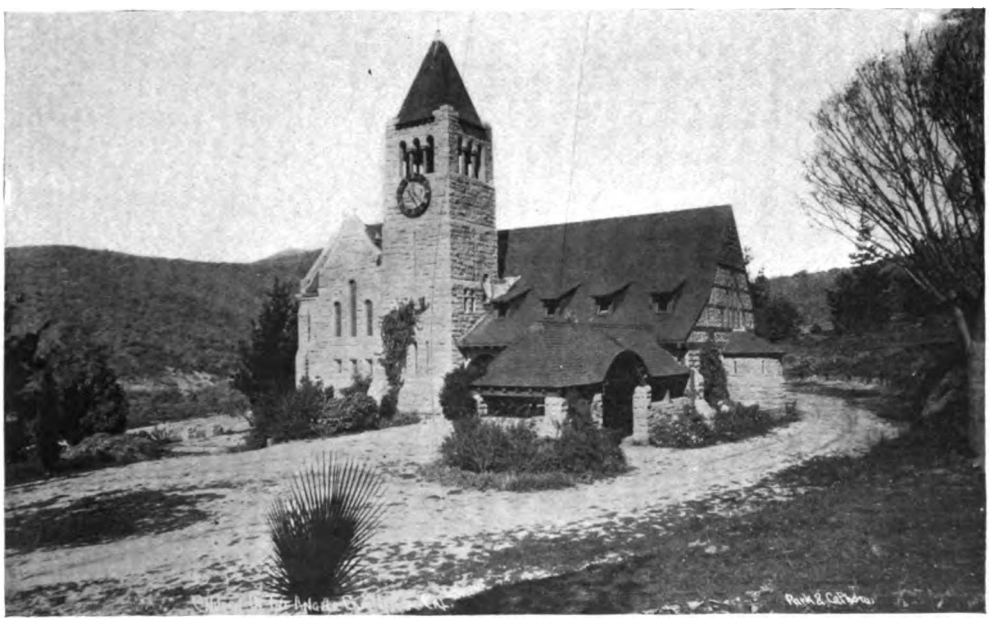


FIG. 5. CHURCH OF THE ANGELS, GARVANZA, CAL.

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But the architecture is as incompatible with vulgarity as the bells with the legends. Nothing could be simpler and more straightforward than the whole exterior. Even the plaster with which the rubble is covered up to the window sills and the brickwork above that rather enhances the simplicity of the work, like a coat of whitewash, while the peeling off which exposes it here and there as a coating and not "dobe" adds a factitious picturesqueness to the exterior. It is only in the interior in which one can detect any trace of pretentiousness and of the vulgarity it entails. The moulded and varnished hammer-beams of the church are 140 feet of length by 26 in width and 30 in height.

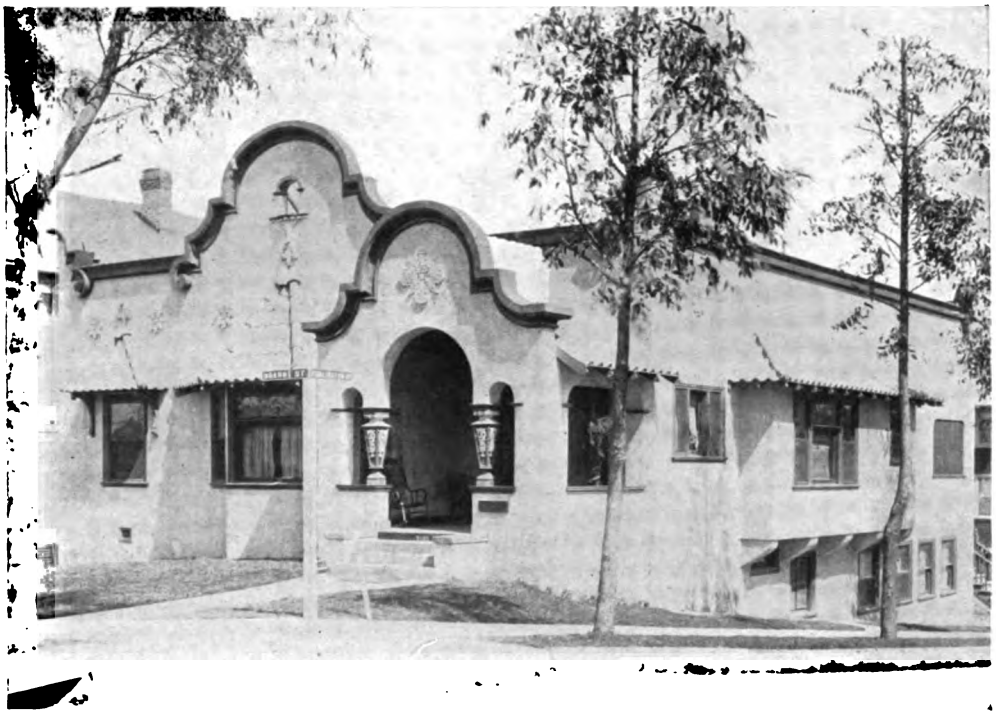
The oldest church in the town itself of Los Angeles is of a somewhat kindred architectural origin to that of San Gabriel Mission. That is to say, it is distinctly "Roman Catholic," being no less than the cathedral church of the diocese. (Fig. 3.) But it is rather Italian than Spanish in its derivation, deriving, in fact, from those churches of the later Italian Renaissance, like the Jesuit church in Rome, which are themselves derivatives from the Italian Romanesque. Nobody that I met in Los Angeles could tell me anything about this church. It

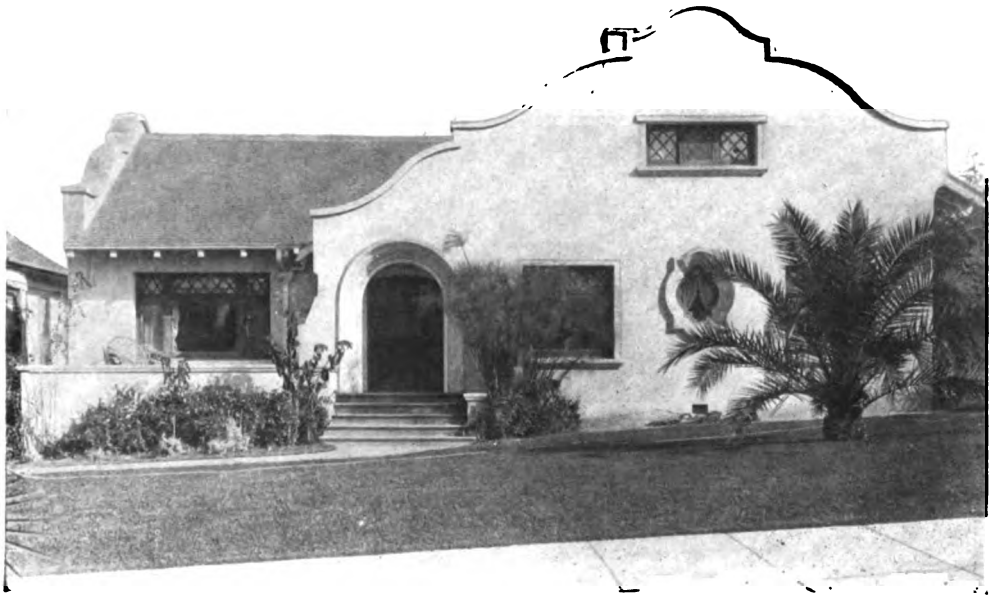


FIG. 6. HOME OF ROBERT J. BURDETTE, PASADENA, CAL.

are plainly more Angelican than Iberian. They date themselves infallibly as much later than the structure in which they are incorporated, and make one regret the undoubtedly rough hewn and unmoulded timber work which they have superseded. One is glad to vindicate the original monastic builders by discovering that the roof was added in 1886, which is to say, after the Gringo had begun to leave his trail on the building of the region. One would like at least to rub off the varnish and leave the timbers to weather into keeping with their surroundings. They would be respectable by their simplicity and rather more than respectable by their dimensions, for the inside measurements antedates the American "boom" of Los Angeles as a pleasure resort. But one can say with confidence that it is by a North American or "Gringo" architect, and not far from a generation of age. It sufficiently resembles a church of the sixties in San Francisco to warrant a conjecture that it is from the same hand. While it has none at all of the homebred and vernacular air which gives its charm to the rude simplicity of the Mission Church, it has an air of cultivation which makes it startling as an example of building in Southern California before the American occupation. In one of the Atlantic cities one would come upon it without any shock of surprise, but with a

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FIGS. 7, 8. HOUSES IN LOS ANGELES, CAL.

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FIG. 9. THE SHAKESPEARE HOUSE (CUMNOCK HALL).
Los Angeles, Cal.



FIG. 10. SHAKESPEARE CLUB.
Pasadena, Cal.

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mild approval as "the regular thing" in its way, the regular academic and sophisticated thing, rather exceptionally well done. But out here:—

The thing, we know, is neither rich nor rare
But wonder how the devil it got there.

Even if we met it in New York or Philadelphia or Baltimore we should look at it with exceptional approval by reason of the enhanced effect which was given to it by its detachment, with the garden alongside and the plaza in front, and the neighboring buildings subordinated to it

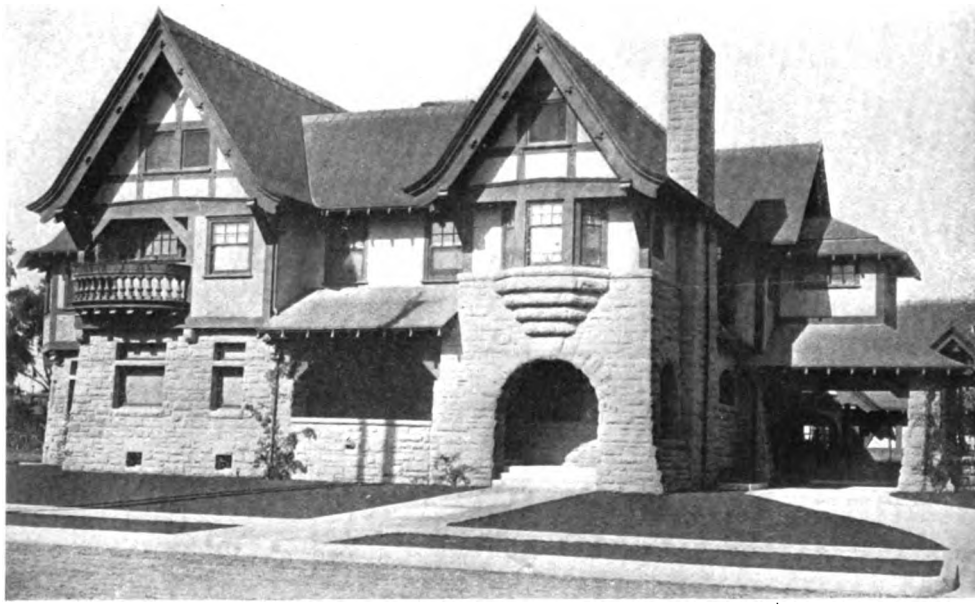


FIG. 11. DWELLING IN LOS ANGELES, CAL.

so that their cornices come up only to the emphatic belt which marks the roof line of the aisles, leaving the clerestory and the upper division of the nave with its pediment and its ailerons, clear of neighborhood or rivalry. But this detachment is as common, as much a matter of course, in the Spanish-American cities, as it is unusual in the Anglo-American.

The later churches are of a more familiar type, if they can be said to be typical. Figs. 4 and 5, for example, might be encountered without surprise anywhere across the continent from Portland, Maine, to Portland, Oregon. Differing as they may among themselves, even in material and costliness, they have this in common that they are suburban or rural, and unpretentious. If they have no local color, as they have not, at any rate they look indigenous, and the fulfilment of real requirements has in both cases resulted in an unforced picturesqueness.

And that is what we find with joy to be the "note" of the domestic building which gives this scene of subtropical "villeggiatutra" its chief artificial charm. Its chief charm, of course, is that of nature. If art will only get out of the way, that is all that one can fairly ask of her on this enchanted shore. But, "where every prospect pleases" it is also pleasant to find that "man" is less "vile" than could fairly be expected of him. And that you really do find round about Los Angeles. How consoling, in the very first place, to find that there are no "swell places." Nothing could possibly resemble Newport less than Pasadena. That

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fabled "Ochre Point Club" of the Atlantic resort, to which the initiation fee is one million of dollars, has no counterpart at the Pacific resort. The trail of the billionaire is not over it at all. There is not a "palatial residence" along this whole coast. Not that there are not "show places." What is locally and modestly known as the Baldwin "ranche" is a domain about fifty times the size of Central Park, and kept up like a park throughout its whole extent, and it seems to belong to the public as much as if the public paid for its upkeep. But when one comes to the home of the noble owner, he finds it a little story and a half cottage without the least architectural pretension or interest. All the better. In this land of perpetual summer and "sweet do nothing," why should anybody go into the house except to eat and sleep? And nobody does. Another show place in Los Angeles is the "House of Roses," whereof the chief attraction is that, when the house is in its glory, you cannot see it at all. It is essentially a rose-trellis. It would be a stupid as well as a wicked billionaire who should undertake to disturb the delightful impression of republican equality which this region makes by setting up his pretentious architectural Ebenezer in it. Such a "villa in the Italian syle" as that of Mr. Robert J. Burdette (Fig. 6) is about the limit in the way of costliness and pretension, and it will be agreed that this is not of a pretentiousness to infuriate the most susceptible Socialist. The settlers seem to have had Emerson in mind:—"Forewarned that the vice of the time and the country is an excessive pretension, let us seek the shade and find wisdom in neglect." It is curious that the immigration should have been so preponderantly from New England, and the well-known New England conscience should have so far asserted itself in the local ordinances, that some of the more mundane Angelicans there be who complain about the restrictions of "this puritanical town." In this, at least, the present race of colonists have not inherited from their Spanish predecessors. But in their domestic architecture they as clearly have, in the spirit more than in the letter, perhaps, but also in the letter. One would be startled to come upon such a house as that shown in Fig. 7, or such an humble and homely but picturesque and artistic cabin as that shown in Fig. 8 in any Eastern town. Here they are altogether in place and help to give the sense of "local color." It is evident how well the style, the style of the Missions, lends itself to the construction in concrete which so many are prone to believe is the coming method of building. As a matter of fact, all the buildings of the new "Clark road," from Las Vegas to Los Angeles, are made of concrete, sand of the desert and Portland cement. And one sees a future for the construction in the residential building of Southern California. For it is essentially the "dobe" construction to which the Spanish settlers found themselves forced by the abundance of adobe soil and the scarcity of timber.



FIG. 12. RESIDENCE IN PASADENA, CAL.

But it is rather by the lesson of quiet-

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ness and moderation they inculcate than by the technical "style" they offer for direct imitation that the architectural labors of the Franciscan missionaries have been most useful. The lesson has been well learned. The English half-timbered cottage, plastered between the timbers, is as unpretentious a mode of building as adobe itself. Possibly it imposed itself upon such edifices as the "Shakespeare House" (Cumnock Hall) (Fig. 9) at Los Angeles, or the "Shakespeare Club" (a woman's club, be it noted) at Pasa-

A cottage with a double coach-house,
A dottage of gentility,

though it falls very distinctly short of the point at which architectural display becomes invidious or "undemocratic," and the passer less favored by fortune than the occupant must be of a churlish turn not to be grateful to his more fortunate fellow citizen for giving him something so well worth looking at. A less favored citizen may still be sufficiently favored to erect for his own purposes such an equally artistic and equally double gabled



FIG. 13. DWELLING IN LOS ANGELES, CAL.

dena (Fig. 10). For was it not the style of the "New Place" at Stratford to acquire which the playwright labored in his vocation in London, quite incidentally and unconsciously the while enriching English literature with the best it has to show. A more costly and substantial rendering of the same style, by the same architect, is the house of two half-timbered gables over a stone basement which vindicates the adaptability of the English cottage style to the purposes of a town house. (Fig. 11.) This is, as Coleridge has it,

cottage as Fig. 12, which indeed is in the general class of dwellings round about Los Angeles in seeming to be within the reach of any fairly frugal, industrious and averagely fortunate Angelican. Fig. 13, indeed, rises to the dignity of a "place," and a place of more pretension, perhaps, than any other on our list, with the exception of Fig. 6, though it by no means seems to involve an invidious state of prosperity. But it is big enough and enough surrounded by grounds to be ranked as an "estate" rather than as a mere "house and lot." Fig. 14, again, is

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distinctly suburban, and might belong to a commuter in any part of our country.

Most of these houses, clearly enough, might be anywhere in the United States as well as where they are. The "color" of them is not "local" but national. The like of them may be seen in the suburbs of any one of the great cities, and in those of the cities not so great. This, indeed, is their chief symptomatic value, and they are all the more valuable for not being exceptional but typical. When the observer reflects how many of such he has seen in the suburbs which he has had occasion to visit, and multiplies those suburbs to the number of those he has not seen, it gives him a realizing sense, as Paul Bourget's American mentor said to him, what an enormous number of very comfortable people there are in these United States. The showing is the more impressive when, as in this case of the environs of Los Angeles, the comfort betokened is of that moderate degree to which any American of ordinary education and ordinary aptitudes may reasonably aspire, when it does not imply that anybody has been depressed that a favored few may be exalted, when, in a word, it is a triumph of democracy. In Los Angeles, for example, it is very often hard to tell by the looks of the houses, whether they are inhabited by people who actually get their livings on the spot, or by pleasure seekers from afar who come only for a season to spend the money they made elsewhere. And the showing is all the more encouraging as a social symptom, when it is a showing how many Americans "of moderate means" and what a steadily increasing number of such Americans are able in their abodes and their surroundings to give evidence of culture and refinement, to avoid the vulgarity of crudity on the one hand and the vulgarity of ostentation on the other.

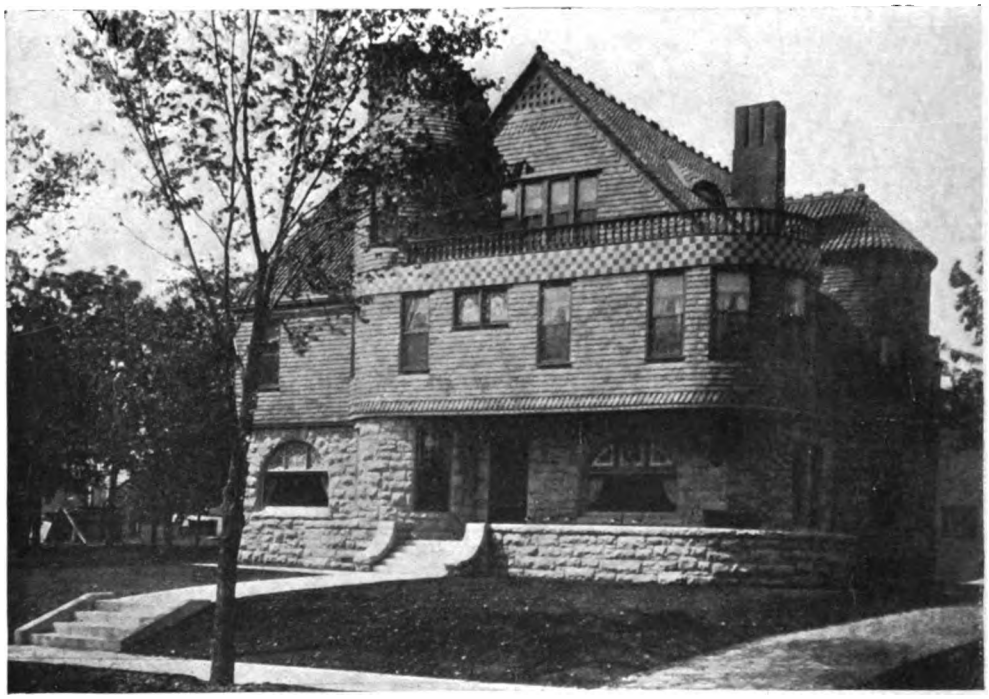


FIG. 14. DWELLING IN LOS ANGELES, CAL.

Montgomery Schuyler.

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The Old New York Custom House and the New City Bank

November 17, 1841, was a great day for New York. For it was on that day that was opened the new Merchants' Exchange, by far the most costly and pretentious building of its own kind within the limits of the United States, and with very few rivals of any kind in these attributes. With their usual lack of enterprise, the New York newspapers of the next day omitted to make even the most cursory mention of the great event. It is solely by the fact that Philip Hone kept a diary that posterity is able to recover the date.

It was a proud day also for Isaiah Rogers, whether or not he was present at the "inauguration." Isaiah ran the risk of being also forgotten, posterity having so many other things to think about. Within these last few years, even, elderly architects have been heard to maintain that the architect of the Merchants' Exchange was Alexander Jackson Davis. But this attribution is the result of a natural confusion, like that Shakespearean theory which maincontends that the plays were not the work of the man we think we know, "but of another man of the same name who lived at the same time." For Davis, alone or in collaboration, was, in fact, the author of a Merchants' Exchange, on the same site, apparently, as the Merchants' Exchange which is now the old Custom House and the new City Bank. This edifice, built of marble, was opened May 1, 1827. Old prints of it may still occasionally be picked up. In 1829 "A. J. Davis, Ithiel Town and Thompson" had their offices in the building and were noteworthy as the only firm of architects in New York, succeeding in that distinction one Brady, who "flourished," to the extent of hanging out a sign, in 1823. But this Merchants' Exchange, marble as it was and supposedly fireproof, insomuch that it had become a repository for valuables, burnt up like tinder and disappeared in the great fire of 1835, leaving its site, the most central and valuable in New York, as a "tabula rasa," upon which, in the course of the ensuing six years, the merchants had reared this stately successor according to the designs of Isaiah, fresh, or not so very fresh, from the laurels of the Astor House in New York and the Tremont House in Boston and the Burnett House in Cincinnati. The occupants of desks in the rotunda of the late Custom House, and most persons who had to do business in it, have been in the habit of execrating the memory of Isaiah, upon the ground that it was highly unsuitable for a custom house or other place of business. So undoubtedly it was. But the execration was very unjust all the same, since it was not designed for a custom house at all but for a daily meeting of merchants, and for this purpose the big rotunda was admirably adapted besides being a very impressive interior with its colossal Corinthian columns of white marble and its aspiring dome. On three sides, though, the old Custom House got the benefit of whatever light was going, only the Wall Street front being darkened by the great Ionic colonnade. At any rate, if the tenants were sacrified to architecture, they at least got the architecture, which in later erections has by no means always been the case. Nothing in its kind has been done since in New York so imposing as that great range of Ionic monoliths in granite. (As to the monoliths, by the way, it is interesting to know that the contractor undertook the colonnade at the rate of an equal area of wall, and reported that he made money on it). While the building was under construction it had but one rival, Trinity Church, which was already beginning to show above ground at the head of Wall Street. The Custom House, with the ground, cost two millions, according to Philip Hone, $1,800,000 according to another estimate, a prodigious sum for the New

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York of 1841, while Trinity is reported to have cost $900,000, but then Trinity already owned the ground.

Outgrown and unavailable as a Custom House the Merchants' Exchange of 1841 has for a long time been. It was difficult to see to what other practical use it could be put. All the artistic sensibility that there is in New York would have been revolted by the vandalism of a demolition of the colonnade. And yet that seemed to be its doom, would have been its doom if Mr. Stillman had not intervened to secure it for the uses of his bank. The community owes him thanks, would owe him thanks even if the conflict between the claims of tradition and architectural dignity and those of utility had been resolved in a much more unsatisfactory way than that which has in fact been found. One could not really expect the building to be retained as a mere home for the institution which had acquired it, when the superaddition which it seemed to invite might have been rented for so many hundred pence and given to the poor stockholders. The banking business does not deal in spikenard nor trim the lamp of sacrifice. Indeed, when the decision was reached to crown the edifice with a superstructure only as high as itself, instead of "steen" stories of skyscraper, the directors had a right to stand astonished at their own moderation and to invite the applause of their fellow citizens.



National City Bank, Showing the Weathered Colonnade of the Old Custom House.

All the same, it was rather a parlous undertaking on the part of an architect to superpose anything on a building so complete in itself, except, indeed, a better, more presentable attic in place of the cheap and shabby sham in cheap material, with which the colonnade had been surmounted on purely utilitarian grounds. To put one complete colonnade on the top of another is not a procedure to be commended architecturally, nor, of course, one which a sensitive architect would have adopted if he had felt himself free to choose. But one wonders why the architect in this case should not have felt himself free to choose. There must, one should say, be some more excellent way than to crown the edifice with a counterpart of itself, only as much lighter and as much richer as Corinthian is than Ionic. Research and ingenuity, one cannot help thinking, should have found out such a way. There are no direct precedents. Naturally. No Greek architect ever had imposed upon him the thankless task of putting anything but a modest attic, or a crowning group of statuary, on the top of a colossal colonnade, so unmistakably complete in itself. But the early Renaissance supplies suggestions, of course on a much smaller scale, in the many buildings of which the ground stories are ranges of columns. An arcade above the colonnade, with its piers over the existing columns, and with its interstices filled with a light and open construction, with detail as congruous with what existed as the designer was able to devise or adopt, this, it seems, should have been a much more eligible solution of the difficult

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problem than that adopted, which, indeed, is rather an evasion than a solution. Doubtless it is the easiest and least troublesome way out. Really to design an appropriate superstructure for a substructure of colossal colonnade should have been a highly strenuous undertaking.

Even assuming the necessity for the double colonnade, however, one might wish that the designer had seen his way to interpose an emphatic belt above the old colonnade to serve as stylobate for the new. The plainer and solider this belt the better. It would have been necessary, of course, to make it a serviceable story and so to pierce it with openings, but with openings as inconspicuous as might be. Something in fact like the attic of the actual erection would have been in place as its base and as a transitional member that would have established a kind of proportion which cannot exist when one complete order is simply set, as here, on the top of another, the plinth of the upper resting directly on the cornice of the lower. On the other hand, the plainness of the actual attic becomes baldness in its place as the crowning member of the doubled order. Those who remember the Astor House as Isaiah designed it remember how greatly its effect was enhanced by the wreathed bull's eye windows of the attic, afterwards squared out to as Quakerish a plainness as those of this new attic of the City Bank. If that treatment was not practically permissible, it seems that the expanse of the attic might very well have been enlivened and enriched in the manner of the great Roman friezes.



NATIONAL CITY BANK—DETAIL OF NEW UPPER STORIES.
William and Wall Streets, New York. McKim, Mead & White, Architects.

But criticising the detail of the new work is a rather thankless performance. We ought to be greatly obliged to the owner for preserving the old colonnade. We ought equally to be obliged to the architects for working the least interference with the dignity of the old structure, and for giving an example of equal dignity in the new.

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The Restoration of Fraunces' Tavern

If we have a patriotic shrine in New York which is attractive upon merely human grounds, that shrine is Fraunces' Tavern. "There are others." There, in Boston, is that "cradle of liberty," Faneuil Hall, of which one has to admit that Liberty can never have been rocked in a cradle more ungainly. That work of the colonial bricklayer and the colonial carpenter, like the "Old South" in the same bleakly puritanical town, adds nothing in the way of adventitious architectural amenity to its historical associations. In Philadelphia there is Independence Hall. Colonial Philadelphia, however, had the good habit, when it was a question of a civic monument, of ignoring the colonial carpenter and invoking the architectural amateur. So the designer of Christ Church had been Dr. Kearsley, a practising physician, who was also a competitor for the honor of designing the State House, an honor which fell to Andrew Hamilton, the leader of the Philadelphia bar. A decent and seemly building was the result, in which famous events might happen without too much incongruity.

A decent and seemly building was, doubtless, that old City Hall of New York, built under Bellomont and Nanfan, at the beginning of the eighteenth century and by L'Enfant enlarged and embellished into "Federal Hall" for the inauguration of Washington, in front of the site of which his statue now stands to commemorate that event. But that event can never become so humanly touching and impressive as the farewell of the victorious general to his officers which preceded it by four years. Doubtless Talmadge's diary, the pertinent extract from which now adorns a votive mantel in the restored tavern in which the event took place, is the common source of the innumerable variations which have since been made upon the theme. Let us take Thackeray's, in that beautiful last chapter of "The Virginians":

The last British soldier had quitted the soil of the Republic, and the Commander-in-Chief proposed to leave New York for Annapolis, where Congress was sitting, and there resign his commission. About noon, on the 4th December, a barge was in waiting at Whitehall Ferry to convey him across the Hudson. The chiefs of the army assembled at a tavern near the ferry, and there the General joined them. Seldom as he showed his emotion outwardly, on this day he could not disguise it. He filled a glass of wine and said, "I bid you farewell with a heart full of love and gratitude, and wish your latter days may be as prosperous and happy as those past have been glorious and honorable." Then he drank to them. "I cannot come to each of you to take my leave," he said, "but shall be obliged if each of you will come and shake me by the hand."

General Knox, who was nearest, came forward, and the Chief, with tears in his eyes, embraced him. The others came, one by one, to him, and took their leave without a word. A line of infantry was formed from the tavern to the ferry, and the General, with his officers following him, walked silently to the water. He stood up in the barge, taking off his hat and waving a farewell. And his comrades remained bareheaded on the shore till their leader's boat was out of view.

The scene of that historic farewell is one of our national shrines. There is no doubt about that. No worthier object could be proposed to an ancestral and patriotic society, like the Sons of the Revolution, than to preserve it, or to restore it to its pristine state, the state in which the great farewell took place, in case it had been alienated and "soiled with all ignoble use."

It had been alienated and it had been "soiled." There was also no question about that. The only reasonable question for the Sons of the Revolution, and for their architect, Mr. William H. Mersereau, was, what did the "tavern near the ferry" look like, and of what did it consist, when the historic farewell was transacted "within its walls," if not "under its roof." Look at this photograph of the tavern as it had come to be at the end of the nineteenth century, and for nearly half a century before (Fig. 1). Whoever knows anything at all about any variety of colonial architecture, Dutch or English, has only to glance at the photograph to see that the two upper stories, with the flat roof, and the lower story, with its substitution of a sash frame for a wall, "have nothing to do with the case." The restorer can

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eliminate those badges of nineteenth-century commercial occupation without the least hesitation. So, as the beginning of a rational and probable restoration, you have to imagine the historic nucleus as consisting, exteriorly, of the second and third stories. Not even of these as they were, for the whole outside was trebly or quadruply coated with equable drab paint, which disguised the very bricks so that it was impossible to tell until the paint was scrubbed off the bricks of the early eighteenth-century nucleus from the bricks of the middle nineteenth-century addition. Just imagine the plainly factitious basement and the plainly factitious third and fourth stories away from the perfectly commonplace warehouse into which the "tavern near the ferry" had degenerated, and consider what you have left as the basis of a "restoration"!

There was really no external evidence to go upon. Rather, such as there was was clearly untrustworthy. The well-meaning Valentine did indeed publish a view of a story-and-a-half cottage, with an umbrageous veranda in front, and present it as "Fraunces' Tavern." But it plainly would not fit. There was in the remains positive evidence that it could never have stood upon the foundations of the tavern. The picture may have been, it is a plausible contention that it was, the representation of the other "Fraunces' Tavern," the tavern which the enterprising "Black Sam" maintained contemporaneously in the suburban seclusion of Greenwich Village, upon the banks of the Hudson, and which place of refection was then in effect the "road house" which the print denotes its subject to have been.

But the "tavern near the ferry," the "Queen's Head," in which for seven years the officers of the British garrison, including poor John André, had "glorified and drunk deep," was far from being a "road house." It was literally a "Queen Anne mansion," probably about the only one New York possessed, seeing that the Queen died in 1714, and the mansion was certainly erected before that. The predecessor on the same site to which Stephanus Van Cortlandt brought his bride, Gertrude Schuyler, in 1671 was doubtless one of those diminutive Dutch cottages in brick, with their gable ends facing the street, of which the last vanished from Albany only a few years ago, and from New York three-quarters of a century ago. When Stephanus made over the property to his son-in-law, the thriving Huguenot merchant, Stephen de Lancey, in 1700, it was not long before the son-in-law razed the Dutch cottage for a house undoubtedly in the British taste of the time, though incorporating some Holland brick. New York had then been New York and British more than a generation, and the Dutch taste had gone out in architecture. London fashions had imposed themselves, to last for more than two centuries. All that we know, from internal or external evidence, of the "hip-roofed mansion of several stories," with the facing of the "Dock," or Broad Street, front of buff Holland bricks, warrants us in believing that it was as near as the builders could come to a fashionable London mansion of the time, a pre-"Georgian" piece of domestic architecture. It was about the time when the "new" part of Philipse's Dutch house, now the City Hall of Yonkers, was being done over in the English taste, the only coeval "example," I suppose, left near New York. It is true that, after the third generation of De Lanceys had begun to inhabit the Queen Anne mansion, after James of that ilk had succeeded Stephen and Oliver had succeeded James, Oliver leased it to a partner, Robinson, of the firm of De Lancey, Robinson & Co., and betook himself else whither. Robinson, Colonel Joseph he was called, lived there until he died, in 1757, upon which melancholy occasion, and after the house had been occupied as a private residence for a full half-century, the firm of De Lancey, Robinson & Co. advertised that they had moved their warehouse "into Col. Robinson's late dwelling, next to the Royal Exchange, and should there continue to sell all sorts of European and West India goods." It was not until January 15, 1762, that the mansion, already degraded from a

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residence to a store, passed by deed into the possession of Samuel Fraunces, "Black Sam," who speedily made it the gastronomical headquarters of the little provincial town, just as, nearly a century later, Delmonico was to make of

possession, by the formation of the Chamber of Commerce, in April, 1768, in the same "Long Room," which, fifteen years later, was to be the scene of the farewell of Washington to his generals. So that Fraunces, at the time of



FIG. 1. FRAUNCES' TAVERN BEFORE THE RESTORATION.

"the old Grinnell mansion," at the corner of Fifth Avenue and Fourteenth Street, the gastronomic headquarters of the hustling republican city. The leading position of Fraunces' Tavern was attested, only six years after he took

the farewell, had already been in possession for twenty-one years, barring brief intervals of occupation by "John Jones" and "Bolton and Siegel," and must have been a grizzled and paunchy publican when the great event took

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place. These are queer considerations for the business man down towards the bottom of Broad Street, who may occasionally take his luncheon now at the old sign of the "Queen's Head," which Sam. Fraunces swung out in 1762.

More to the immediate purpose is it that the mansion-warehouse-hostelry in all, mostly occupied by the class of lodgers, male and female, you would expect to find living at the foot of Manhattan Island.

In addition to the necessary transformation resulting from the various uses to which the Queen Anne mansion had been put, the building had been visited,

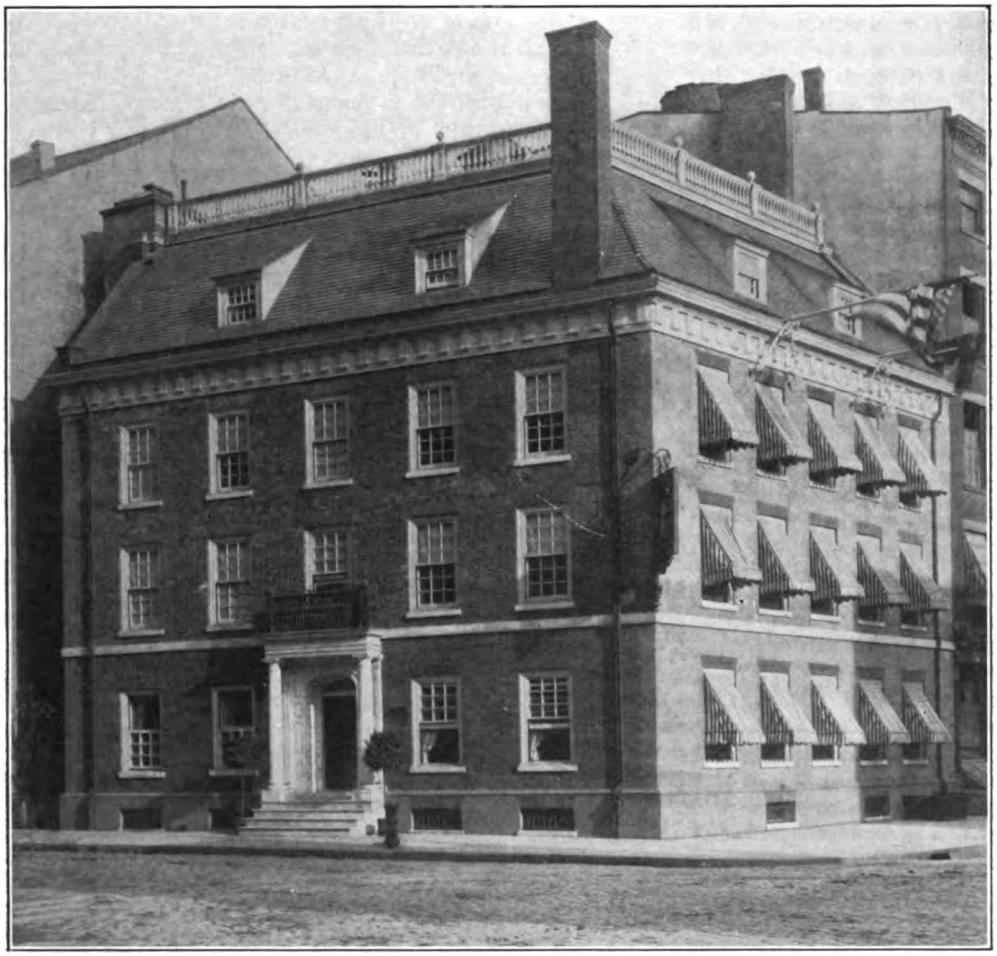


FIG. 2. FRAUNCES' TAVERN RESTORED.
William H. Mersereau, Architect.

must have undergone many changes during the eighteenth century, and of course still more during the nineteenth, when it gradually sank to be nothing but a glass-fronted beer saloon at the bottom, with the saloonkeeper's abode above, and above that two superadded stories of bedrooms, forty-six of them during the nineteenth century, by two destructive fires—one in 1832, one in 1854, after the latter of which the two additional stories of bedrooms had been added. Obviously, the restorer had to "scrape to the bone," outside and inside, to find his nucleus. Recent operations in the interior uncovered instruc-

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tive structural facts, the slope of the roof of the original mansion, the size and shape of the old brick and what there was left of the construction of the "Long Room," for which alone it was worth while to reconstruct the building. On the outside, much scraping developed that the "Dock" street front, much the more important as fronting on the plaza of the "slip," at the southern end of the old water-course which makes the present street "Broad," had been faced with small white, or, rather, buff Holland bricks, while the less important and conspicuous Queen Street front had been faced with red brick of English shape and size, if not of English make.

Here are some quite unmistakable indications, which were faithfully followed. It almost looked as if, to restore the Broad Street front, it would be necessary to set up a plant for the making and baking of hand-made brick. It seems that not even that would have sufficed, since, it seems, the argillaceous product of the Low Countries has elements which give it more variety and iridescence than American clays. By great luck it was discovered that there was a yard near Rotterdam in which the old seventeenth-century Batavian bricks are still made by hand according to the conservative methods of "the phlegmatic Dutchman," and some 14,000 of these were imported to be incorporated in the western wall of the restored building, while bricks quite plausibly resembling those of the northern wall are still made in Baltimore, from which they were procured in sufficient quantities for the purpose.

The force of authenticity could no further go. For the detail, detail in wood two centuries old is hard to identify and reproduce, when it has been subjected to such neglect. Acquaintance with the work of the period, and adherence to it, is all that can reasonably be required of the restorer. That this has by no means been wanting any qualified inspector of the restoration will readily attest. The illusion is complete. The

violet of a legend blows
Among the chops and steaks.

Not only might the Long Room which the stranger visits be revisited, so far as he can judge, without sense of incongruity by the shades of the soldiers concerned in the great scene of December 4, 1783. It might similarly be inhabited, like another Turk's head, by Johnson and Burke and Boswell, nay like a tavern in Soho, by the ghosts of Pope and Swift and Addison and Steele, with whose prevalence the Queen Anne mansion of Oliver de Lancey was contemporary.

One drawback one really must make to his acknowledgment of the fidelity and success of the restoration, one drawback which it were unjust to impute to the restorer. Why that sign board, which strikes one as an effusion of the sign board art of the vague future, rather than of the specific past? Note that the British had only been out of New York for ten days when the farewell was given. It is not very conceivable that Black Sam had undergone a fit of iconoclasm which induced him so soon to obliterate the sign under which his late customers had for so many years made merry, not conceivable at all that he had replaced it by anything like the weird and wondrous effigy that in fact that takes its place. Doubtless it was still the "Queen's Head," still the weather-beaten representation, as flattering as the sign painter could make it, of the lineaments of the little girl of seventeen, born Princess Charlotte of Mecklenburg-Strelitz, who had been promoted Queen, on account of a school girl essay on the horrors of war which had been written as a letter to Frederick the Great, and which had touched the heart of George the Third, the year before Sam Fraunces came into possession of the tavern which he loyally named after her. Distinctly the nearest attainable equivalent of the old sign ought to swing to the breezes in its strange new surroundings. And, whether or no, it seems that the actual nondescript should be taken down.

Montgomery Schuyler.

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STA. MARIA IN COSMEDIN.
Part of frieze in the vestibule. A work of the XI. Century.

A Restoration: Sta. Maria in Cosmedin

The second quarter of the last century was marked, both in England and on the Continent, by a revival of ecclesiastical architecture and an awakening to the beauty of mediæval art. A movement contingent upon the renewal of religious life among the people at large, and a deep-seated revulsion among the thoughtful from the frivolous and destructive indifferentism of the eighteenth century. It was made plain, by the light of reverent and scientific inquiry, that the so-called "Dark Ages" were not so dark, that the architecture and decorations of this misrepresented period were marvels of the highest artistic culture. On this becoming an acknowledged truth the various nations of Europe began to respect the works of the Middle Ages, and to value the buildings of their forefathers, structures which linked their time with bygone ages; and, moreover, where these buildings and monuments had fallen into decay through age, or had been shorn of some of their embellishments by the ruthless hand of fanatical iconoclasts, there arose among these nations a desire to preserve them from further disintegration and to restore them to their pristine beauty, they fully realizing that the history of a mighty people is written just as much in its public buildings as in its military glories, its legislative wisdom, or its religious belief.

This new-born spirit of admiration and restoration, more particularly in England, became the fashion, and, like all movements that become "fads," was often more hurtful than beneficial. The first restorations, as could be expected under these conditions, were undertaken by the half-informed, by the over-confident and ignorant enthusiast; but after a while men of large knowledge and careful study turned their attention to the work, such, for instance, as George Gilbert Scott and George Edmund Street, skilled and accomplished architects. These gifted men were guided in the restorations they undertook by the conservative and eclective spirit of Welby Pugin, the master mind of the Gothic revival, the man who dared "to convict the nineteenth century of ignorance, and to twit the age of enlightenment with the absurdity of its taste and the obscurity of its artistic vision." He held that where a detail was lost, such as the tracery of a window, a gable, a capital, a moulding, an ornament, or any other feature, its restoration must not be left to the mere conjecture or fancy of the restaurateur, but that if no portion of the old work could be found to give a clue to its restoration—a motive upon which to build the new work—then a search should be made for the model in buildings of a corresponding period and style, and, if possible, in the neighborhood of the proposed restoration.

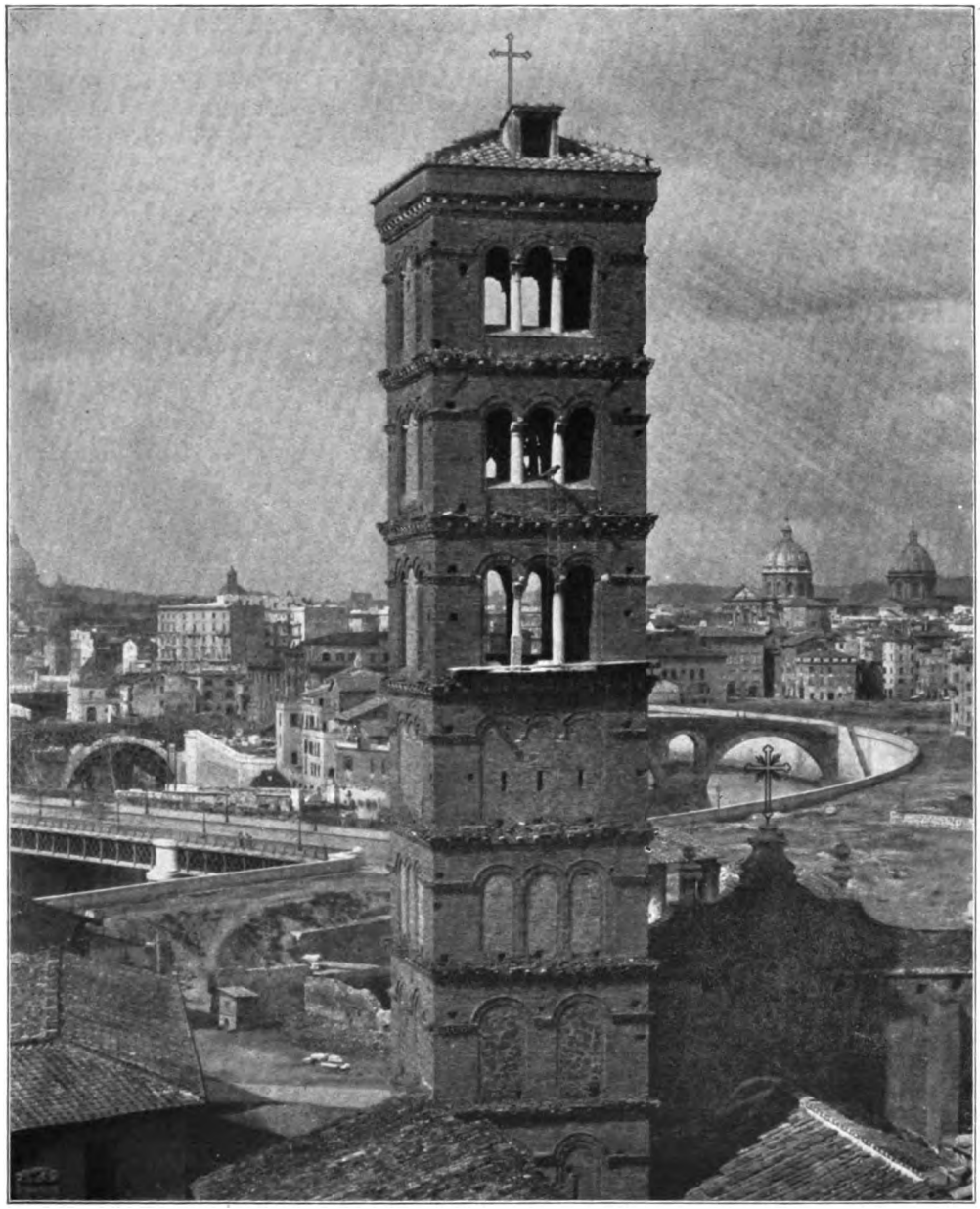
While both Scott and Street endeavored to adhere to Pugin's eminently common-sense principle, and to consci-

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STA. MARIA IN COSMEDIN—THE RESTORED FAÇADE.
G. B. Giovenale, Architect.

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STA. MARIA IN COSMEDIN—THE TOWER, SHOWING THE BACK OF THE FAÇADE REMOVED
Rome, Italy. BY GIOVENALE.

entiously follow the line of thought of the original architect of the building undergoing restoration, nevertheless they were never mere imitators, but did their best to comprehend the motive of the style, in order to make their art a living instrument by which to express their own genius within the confines of that style. Their theory of work is without doubt the correct method to be employed in all forms of restoration, and is a safe guide in future work of this nature, no matter what the style may be.

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Most of the architects in England followed closely the lead of Pugin, Scott and Street; there were others, fortunately few in number, who worked in a haphazard manner and caused wanton havoc, as may be seen in Salisbury Cathedral, where the so-called restorations are nothing more than reprehensible changes. The chief offender in this line was justly described by Mr. Pugin as a "monster of architectural depravity"; however, on the whole, the restorations accomplished and the work still going on in Great Britain is to be highly commended for its judiciousness and its vast proportions. In England alone, not counting Ireland and Scotland, since 1842 there have been restored over fourteen hundred mediæval parish churches, all the cathedrals and many other ancient buildings.

Among the Continental nations there has also been a very great number of restorations, but, unfortunately, in many instances, they were carried out in a much less reverent spirit than in England, and often to the great injury of the monuments. The cathedrals of Rheims and Laon have in this way suffered most severely; the interior of the old church of San Francesco, at Bologna, has been ruined; and the unmatched area of the Church of the Eremitani, at Padua, has been lost; and in



STA. MARIA IN COSMEDIN—THE PROPOSED INTERIOR RESTORATION. FROM A DRAWING OF THE ARCHITECT.

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hand with these perversions, the beauty of Venice's best examples of domestic architecture—the *Casa d'Oro* and the Palazzo Segredo—by pretended restorations have become things of the past. This sad catalogue could be greatly lengthened, for it is only of late that the Continental restaurateurs are following proper and scholarly lines.

In Rome, under the auspices of the *Assoceazione Artistica fra i Cutori di Architettura* and the wise supervision of the architect Giovanni Battists Giovenale, a careful and well-thought out restoration has, for some time, been under way, namely, the small basilica of Sta. Maria in Cosmedin, on the Piazza Bocca della Verità, close to the Ponte Rotto.

This interesting church of Sta. Maria in Cosmedin, like many of the other churches of Italy, was originally a pagan temple, that of Ceres and Prosperphine, dedicated to these divinities by the Emperor Tiberius, and was probably changed into a Christian place of worship shortly after the cessation of the persecutions, and at an early date became one of the diaconate churches of Rome, at which time it was known as the Church of *Sta. Maria in Schola Greca,* so called because it was situated in the midst of the Greek colony. In the course of centuries it was rebuilt no less



STA. MARIA IN COSMEDIN—CAPITAL OF COLUMN OF THE NAVE.
Rome, Italy. (Post Constantine.)

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than five times, and marks of each successive structure are still to be seen in the existing building. At one time, in the fourth century, a part of the building was made into a spacious hall for the use of the administration of the Annona, where the poor of Rome assembled to receive the largess of the emperor—the corn which was distributed to them gratuitously. Through its double use as a church and a granary, it gradually became dilapidated, and at last fell into such a ruinous state that Pope Adrian I. (A. D. 771-795) ordered it to be rebuilt and thereafter to be used exclusively as a church, and it was at this time it received its present title—Sta. Maria in Cosmedin (Kosmos—adorned). Eighty years later, under the pontificate of Nicholas I., it was again rebuilt, and three hundred years after that, in the twelfth century, it was once more in the hands of the builders; and lastly, in the eighteenth century, it was again rebuilt, when a most inappropriate façade was added to the basilica. The spirit guiding these numerous rebuildings was quite unlike that of to-day. There was no attempt at restoration in the modern sense of the word, for apparently there was no reverence for the associations of the past, no desire to develop either the architectural or decorative motives of the original design; the builders followed the genius and dominant taste of their own age; the art of the period reigned supreme and often proved destructive of a better art.



STA. MARIA IN COSMEDIN—A SCULPTURAL PANEL FOUND IN THE CHURCH. A WORK OF THE VIII. CENTURY.
Rome, Italy.

Just what the Temple of Ceres and Prosperphine, the original building, was like, is hard to say, although a good portion still exists, but most unfortunately it consists of the purely constructive parts: the *opus quadratum* of tufa. The existing columns, it is quite evident,

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are of a later date, and are believed to be of the age of Constantine or one of his immediate successors, and undoubtedly formed a part of the diaconal church, erected within the hall of the Annona, a supposition which is probably true, not only because the columns are in the style of the decadence of the early Christian emperors, but because it was at this time, in the fourth century, that the administration of the Annona in part



Arch.t G. B. Giovenale

passed from the hands of the state into that of the church, whose seven deacons had charge of the poor of Rome, and it is a constant tradition that this church was one of the seven *Diaconia*.

The restoration and enlargement of Sta. Maria in Cosmedin, ordered by Pope Adrian, in the eighth century, was justified, not only by the ruinous condition of the church, but also because of the need in that part of the city of a larger building to accommodate the constantly increasing congregation. The enlargement consisted in building two aisles, adding an apse to each one, by deepening the apses of the nave, by erecting a *narthex* or place for the catechumens and a new vestibule. At this time there was placed in the center of the nave a choir, surrounded by a marble balustrade, flanked by a Gospel and Epistle ambo; and beyond the choir—between it and the presbytery—a marble inconostasis, which must not be confounded with the rood-screen of a Gothic church, as this partition separated the bena or sanctuary from the choir, and not the chancel from the nave. This inconostasis, in a way, corresponded to the altar rail of an Episcopalian church, as far as the division of places is concerned. At the side of the nave there were spaces set apart for the exclusive use of women and consecrated virgins, similar in arrangement to the places reserved for them in the basilica of S. Lorenzo. In many ways the church was greatly enriched by Adrian. And during the present restorations the architect Giovenale has brought to light many fragments of these embellishments and furnishings; among others, an altar table standing upon a single column, the shaft decorated with flutes running obliquely.

The appearance of the church of Adrian was greatly changed by the restorations undertaken in the eleventh century, at which time the ground surrounding the building was raised over three feet; the façade was altered, the main entrance decorated with sculpture —human figures, animals and symbols— all very grotesque, and also some of the columns of the nave were changed and a number of new capitals introduced; the walls were decorated with frescoes of saints; in the great apsis there was portrayed a majestic figure of Christ, surrounded with angels, prophets and inscriptions.

In the twelfth century, Alfanus, Archbishop of Vienna, built in the vestibule a mortuary monument of great beauty, paved the church with a floor of mosaic, erected a marble throne, re-enclosed the choir and enriched the ambos with cosmati mosaics. In the following century (thirteenth) a marble Pascal candle-

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stick was placed beside the Gospel ambo, which stood on what is now the Epistle side of the choir, for at that time the Gospel and Epistle sides were the reverse of the present-day usage, for the reason that the celebrant stood with his back to the wall of the apsis—facing the people—with the altar between him and the congregation. Altogether, the changes and decoration executed during the eleventh, twelfth and the thirteenth centuries quite effaced the original building and much of the work that was done under Adrian and Nicholas; and this, in turn, was largely obliterated in the eighteenth century, when Cardinal Albani, desiring to improve the church, committed a number of architectural enormities, such as building a new and most discordant façade. At this time the floor of the church was below the level of the piazza, so much so that it was approached by a long flight of steps; hence, very naturally, the church was damp, and so unwholesome that the canons no longer attended choir; consequently, Clement XI. caused the piazza to be lowered to its present level.

The restorations that have already been accomplished and are now under way will ultimately bring into being once again the church as it appeared in the twelfth and thirteenth centuries: rich in frescoes, cosmati mosaics and carved marbles. All of the work that has been so far completed shows scholarship, wonderful intuition and a profound respect for the past, making evident, even to the most superficial observer, that the architect Giovenale has brought to the task entrusted to him great enthusiasm, combined with large knowledge, so that when the restoration is an accomplished fact the world will have another architectural example of bygone days in all its original beauty—a monument of Christian art: a multiplicity of individualities of various periods harmonized, having for its fundamental motive the honor and glory of God.

Caryl Coleman.



STONE MOSAIC PLACED IN THE PORTICO OF THE CHURCH IN 1632.

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Lesser Châteaux of the Loire

Saumur and Montreuil-Bellay

The traveler in Touraine who has plenty of time at his disposal could easily spend a couple of agreeable days at Saumur. He might visit its several ancient churches and profitably meditate on its religious vicissitudes, from the material effects of which it has never wholly recovered even to this day, though it is a long cry back to the period when, prior to the Revocation of the Edict of Nantes and the emigration of the Protestants, it was a large and prosperous Calvinistic town. He might see the sixteenth-century Hotel de Ville, with its library and natural history collections—all a little dusty and neglected, as things are wont to be in the provinces. He might, on his way to the castle, explore the narrow, picturesque streets at the base of the hill which commands the valleys of the Loire and the Thouet, in search of old buildings, such as the house in which Mme. Dacier, the translator of Homer and Aristophanes, was born in 1651. He might, if of a military turn of mind, inspect the Cavalry School and pass judgment on the horsemanship of French officers. And, finally, he might even learn how the renowned white wines of the district are made to imitate champagne in everything save lightness and delicacy of flavor.

In our case, however, the thought that we had as yet seen barely half of what we had come to Touraine to see made us feel that we could not afford to devote more than half a day to Saumur, with the result that the major part of its attractions had to be accepted on hearsay from the lips of a loquacious old gentleman whom we chanced to meet at the hotel. Whether his knowledge of archaeology was as sound as his taste for *vin blanc mousseux*, I am not quite certain; but we agreed to give him the benefit of the doubt.

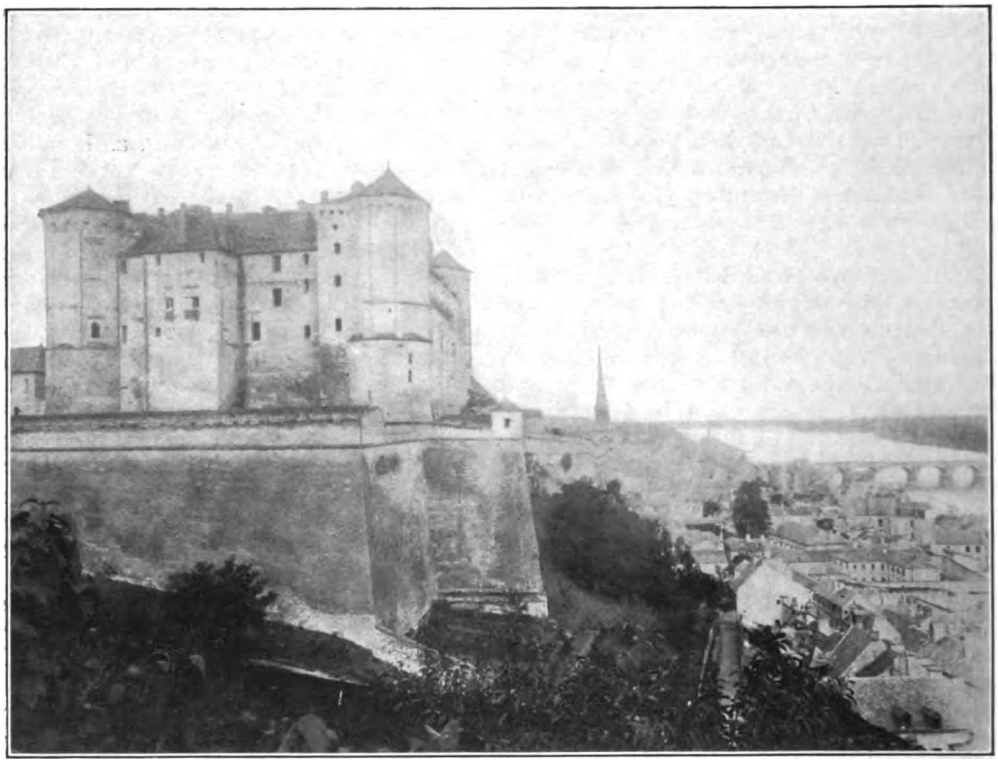
The shortness of our stay naturally led to a mere cursory inspection of some of the antiquities of Samur. The castle was the only building we saw at all thoroughly, and consequently it is the only one on which I have any right to speak. Turning up one of the small streets facing the Quai de Limoges, a very steep and circuitous path, winding through hillside gardens, brought us to the entrance, where we found the unavoidable guide waiting to receive us. The rôle he took was, however, a very unobtrusive one, consisting, as it did, in leading us from dungeon to dungeon, and from turret to turret, almost without a word of comment. He allowed us to linger as long as we pleased, and he did not presume to enter into our conversation. It was a pleasant change to feel that one had no competitor when recounting the history—such as it is—of the castle.

Geoffrey Martel, the son of Fulk the Black, began to build it in the eleventh century. But, like most mediaeval fortresses, it was not completed until later—not until the thirteenth and fourteenth centuries. Battles were waged beneath its precipitous enceinte; and it was won now by one, now by another fierce leader. Centuries of continued strife naturally brought in their train numerous changes in its architecture. It originally consisted of four large wings, but one of these has entirely disappeared, leaving a central courtyard open to the valley of the Loire. This courtyard contains the most decorative portions of one of the most undecorative of the castles of Touraine: the sculptured exterior of a staircase, with niches which are said to have once held statues; and, over a doorway, a bas-relief, representing two wrestlers—presumably Gauls—covered with long hair. The latter work has every appearance of being exceedingly ancient, and it is probably even older than the castle itself. In the courtyard, also, stands a curious construction pierced with openings and

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with a domed roof. This gave air, rather than light, to a dark, subterranean room in which the lord of the castle tried his prisoners; and as to the methods he employed to obtain evidence we could form a very good idea in the glimmer of the guide's lantern. At one end of the chamber there is a sort of platform on which the lord and his advisers sat in judgment, and beneath this can still be seen part of the apparatus which was used to drag confession from their enemies. Many a time must that courtyard have rung with the screams of tortured men!

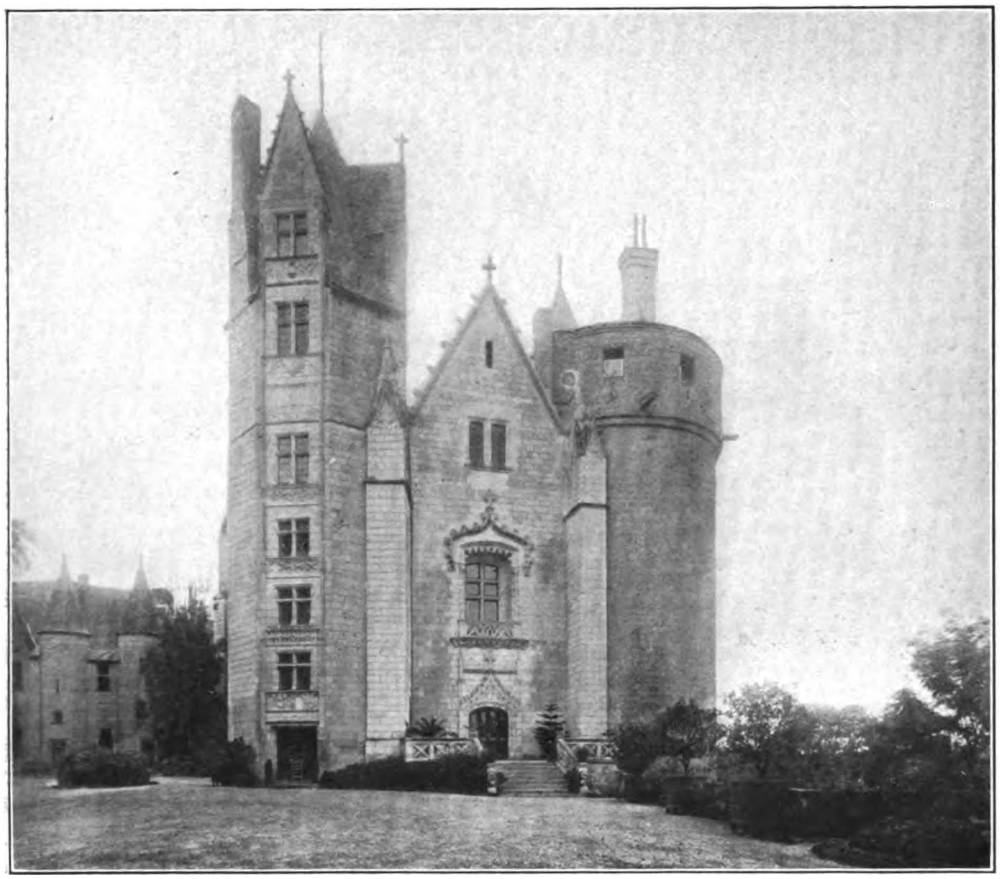
There you have the distinctive note of the Castle of Saumur. When its "memories" are not actually sinister, they are never very agreeable. You cannot think of it as a residence for anyone except a mediaeval warrior, continually on the alert; and it is for that reason, I suppose, that it has never been anything else than a fortress, a prison, or a barracks. Descending to its dungeon, it was clear from the names and dates and pathetic words scratched on the walls to what purpose the castle had been put as far back as the days of Nicolas Fouquet, who spent part of his long imprisonment there. Napoleon I., too, used it as a prison. After that it became a barracks—a further step in its degradation. Here and there in its interior we could trace the remains of former decoration, but the rooms have been so cut up and mutilated that it was utterly impossible to reconstitute their ancient disposition. The pleasantest part of our visit came when we ascended to the top of one of the towers, whence we obtained, as the day was favorable, a perfect view in all directions, to Chinon and Bourgueil in the east, and even as far as Angers, whose cathedral spires gleamed in the northwest.



SAUMUR—THE CASTLE SHOWING ITS POSITION IN RELATION TO THE TOWN AND RIVER.

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The pleasure we had experienced in traveling from Blois to Saumur along the banks of the Loire had made us decide to follow the other rivers of Touraine, whenever possible, in a similar manner; and we should much have liked, on leaving Saumur, to have explored the meandering course of the Thouet, which flows into the Loire a little below that town. But practical difficulties stood in the way of such a journey, so we took the direct road to Montreuil-Bellay, the point on the pretty little tributary where we were to see another château.



MONTREUIL-BELLAY—THE CHATEAU NEUF.

As we arrived within sight of its massive towers, rising from amidst the trees on the summit of a hillock, I could not help mentally commenting on the contrast it formed to the severity and bareness of the Castle of Saumur. Indeed, we had as yet seen no more picturesque setting for a country residence. The Thouet, elsewhere a narrow stream, widens out at Montreuil-Bellay into a broad basin, divided into four branches by a number of islets, thickly wooded and covered with vegetation to the water's edge. It abounds with countless little sedgy backwaters, begemmed in summer with white and yellow water-lilies, and, like the islets themselves, alive with birds. It possesses two bridges, one dating from the Middle Ages, the other from 1811! and at the foot of the latter—completing the delightful picture which can be seen from the castle's battlements—stands an ancient mill.

In tracing the origin of Montreuil-

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Bellay and its château, one can go very far back in history. That the district was inhabited in prehistoric times has been shown by the discovery of flint implements, and also by the existence, near the little town, of prehistoric monuments. A Gallo-Roman village is said to have stood on the same site, though no conclusive evidence of this has yet been brought forward. Later, a feudal castle, surrounded by the rude dwellings of villains and serfs, was built on the hill above the Thouet; and this early fortress is commonly believed to have fallen into the hands of Fulk the Black, who gave it in fief, about the year 1025, to a supporter named Berlay or Bellay, the brother-in-law of the man whom he had conquered. Bellay and his descendants, hoping to be able to dispense with the authority of the Counts of Anjou, fortified the castle, whereupon Fulk V. set out against them, and, in 1124, captured their stronghold. The ambition of another member of the same family, Giraud II., was similarly shattered twenty-six years later, when Geoffrey Plantagenet laid siege to the castle, which he did not capture, however, until 1151, just a year from the time his troops had first encamped beneath its solid walls.



MONTREUIL-BELLAY—PETIT CHATEAU TO THE RIGHT AND MEDIAEVAL KITCHEN TO THE LEFT.

The next family to own the feudal castle of Montreuil-Bellay was that of the house of Melun, and with one of its descendants, Guillaume IV., Count of Tancarville, we come to the building of the present château. Early in the fifteenth century he constructed the Château Vieil, in addition to a strong wall

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around the town, a wall the remains of which still exist, and which you must certainly see before leaving the district. The Harcourts, a Normandy family which held a position in the front rank of the French nobility, were the owners at the end of the fifteenth and the beginning of the sixteenth centuries. They built the Château Neuf and completed the Collegiate, which stands in the château grounds. The domain then passed to the house of Dumois, or Orleans-Longueville.



MONTREUIL-BELLAY—THE DRAWING-ROOM, FORMERLY THE GUARD ROOM.

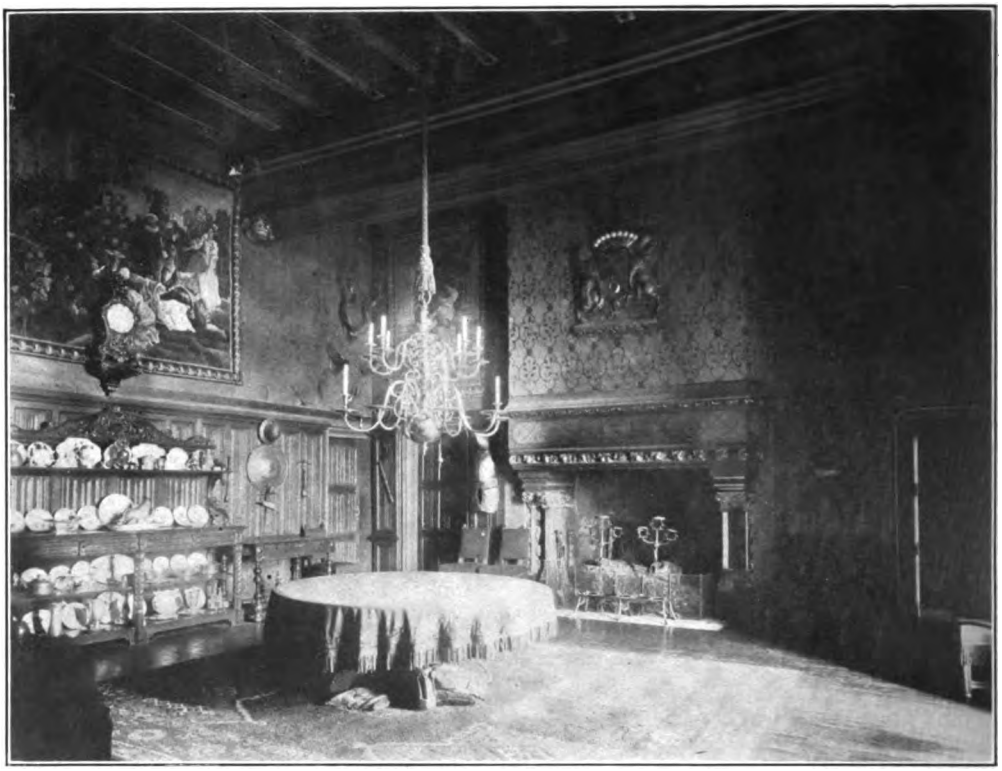
During the Wars of Religion, Montreuil-Bellay was occupied by the Huguenot army, Henry of Navarre having captured it in 1589, whilst marching against Henry III. In 1622 the château was sold to Marshal de la Meilleraye, from whose hands it passed to the house of Brissac, which possessed it until 1756, the date at which it was again sold, this time to the Duc de la Trémoïlle.

Confiscated during the Revolution, it was captured from General Saloman, on the night of June 8, 1793, by the royalists of the Vendée, but was retaken shortly afterwards by the Republicans, who for nearly a year used it as a prison for several hundred women whom the Committe of Public Safety had had arrested as *suspectes*. On the 6th of Messidor, year 4, it was sold as national property to a merchant named Augustin Glaçon. But on the 25th of Brumaire, year 5, the sale was annulled, and the Trémoïlle family re-entered into possession, at first provisionally and then definitely. It was once more, and for the last time, sold on April 15, 1822. The new owner, M. Niveleau, bequeathed it to his son, M. Adrien Niveleau, who left it to his sister, Baronne Millin de Grandmaison, who, in turn, in 1890, left it to her grand-nephew, the present owner, Baron Georges Millin de Grandmaison.

After so stormy a period as the Revolution, the Château of Montreuil-Bellay was naturally in great need of restora-

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tion. M. Niveleau *père* did much to made it habitable, but Mme. de Grandmaison felt that something more than mere absolutely necessary repairs was due to a house which had given hospitality to such illustrious people as Louis VIII., Charles VII., Dunois, Louis XI., Charles VIII., Duplessis-Mornay, Henry IV., Louis XIII., the Duchesse de Longueville and Anne of Austria. So she commissioned M. Joly-Leterme, a well-known architect of Saumur, who had



MONTREUIL-BELLAY—DINING-ROOM OF THE CHATEAU.

already restored public buildings in that town, to do his utmost to restore its exterior and interior to the state it was in during its palmiest days. Most zealously did he carry out his work; and if he is to be in any way criticised it is for being overzealous as regards the decoration of the château rooms, some of which are perhaps a little too brilliant in their coloring.

But before entering the inhabited part of the Château of Montreuil-Bellay, let us inspect the exterior of the various buildings of which it is made up, and note their admirable situation. As a visitor wrote at the close of the eighteenth century, "few châteaux show better than Montreuil-Bellay that it is an extensive and ancient domain. Its position has been selected from the very ground on which the town is built, and it thus forms a sort of open quarter between the town and the hillside on which it stands. This hill side commands the ground to the east and west for a distance of three leagues. To the north, opposite the castle, are rivers and fields, forming a deep valley, and beyond these is another hillside covered with vines as far as Garenne and the Forest of Brossay, a view of which, half a league away, can be obtained from the château and its terrace.

"You enter the château grounds by

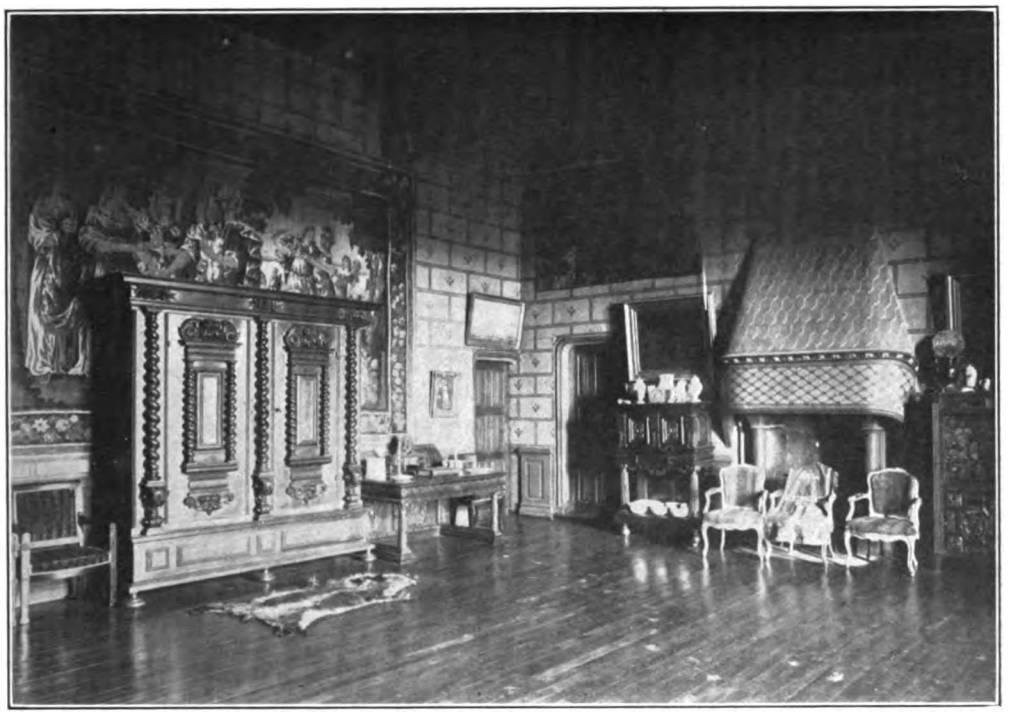
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way of the town and an open space. * * * A drawbridge, preceded by two arches, has first of all to be crossed, and this is followed by a second *pont-levis* leading to the door of the castle, which consists of two large buildings, one called the Château Vieil, the other the Château Neuf. * * * This door is situated between the two towers of the more ancient of the two castles and leads on to a fine terrace about three roods in area. The first château has three floors and is double, with views on to the town and river. Two small towers at its extremities form two staircases opening on to the terrace."

With a few slight alterations this description, which was drawn up in 1760 by order of the Duc de la Trémoille, holds good to-day. The ancient barbacan has lost its drawbridge, but its large and small entrance doors, guarded by loopholes, still exist. The second drawbridge has also gone. Nowadays, in short, all mediaeval obstacles have been removed, and you enter the grounds without let or hindrance.

Immediately on entering the *cour d'honneur,* you see on the right the old château, with the Collegiate; on the left, a curious little building with four round towers and conical slate roofs, known as the Petit Château, and, adjoining, the kitchen. To the left, also, and right in front of the terrace, stands the Château Neuf.

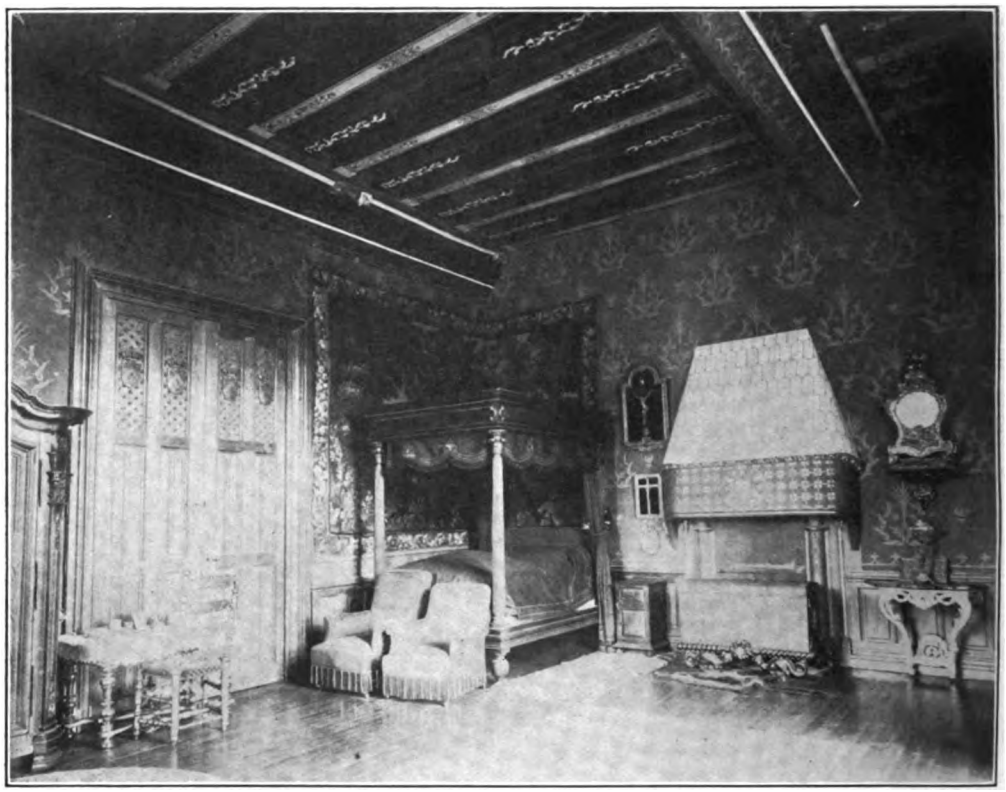
The old château, occupied by the gatekeeper, servants and other employees on the estate, remains almost intact. Apart from the entrance, it consists of two square wings, with an octagonal tower, containing a spiral staircase, at each end. With the exception of the tops of these towers and the chimney stacks, which are of brick, the entire building is constructed of courses of large stones. This and other architectural details, such as the mullioned windows, the pointed roofs, the towers and the doors with rounded lintels, point to the fact



MONTREUIL-BELLAY—THE SALLE DE LONGUEVILLE.

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that it was built between 1460 and 1470. The Collegiate also dates from the end of the fifteenth century. Guillaume de Harcourt, Comte de Tancarville, was responsible for its erection and the foundation of a chapter of fourteen chaplains; and in this work he received the support of Pope Sixtus IV. It is an exceedingly fine church, 44 yards long, 12 yards broad and 18 yards high, proper; but, instead of being round or polygonal, as is usually the case, it is square. According to an eighteenth-century writer, whose testimony is worth quoting, since the building has undergone alterations, it possesses "a double chimney in the center, and, in addition, two other chimneys to right and left." These last-named, says the Abbé Bosseboeuf, our principal modern



MONTREUIL-BELLAY—CHAMBRE DE LA TREMOILLE.

with a pentagonal choir, and a roof in the flamboyant style.

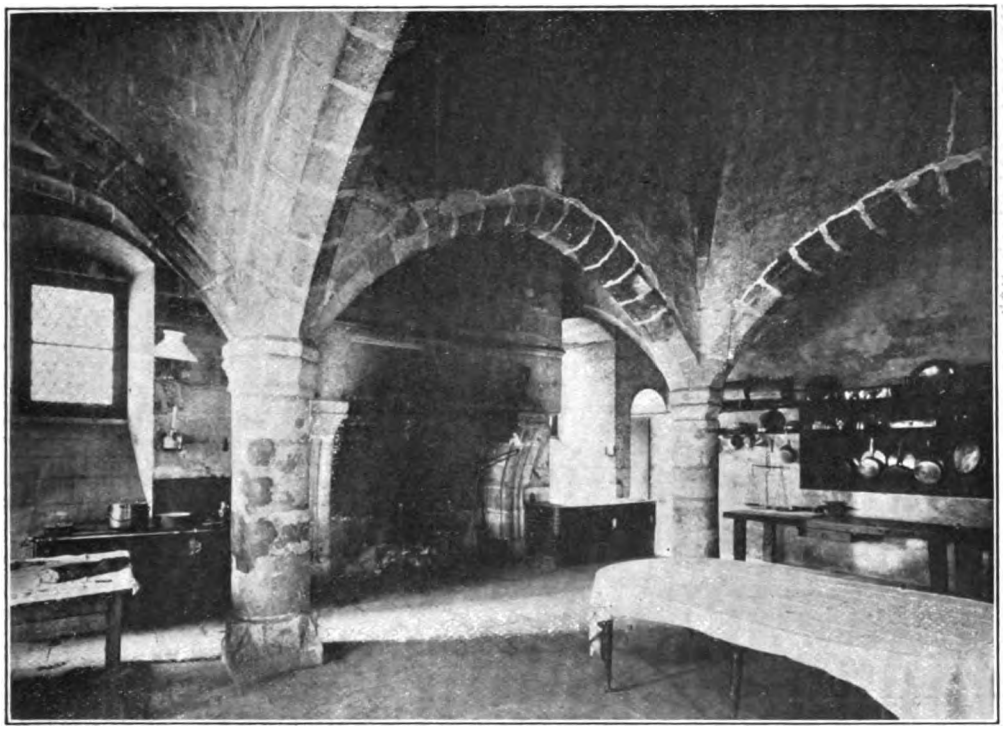
Before entering the Château Neuf, a visit should be paid to the ancient kitchen, one of the most interesting buildings of its kind in the world. It was probably built at the instigation of the canons who officiated at the Collegiate, dignitaries who were quite as fond of good living as their master the Lord of Montreuil-Bellay. Like many mediaeval buildings used for a similar purpose, it is separate from the château authority on Montreuil-Bellay, were altered at the time of the restoration of the château. But their brick flues, similar to the central shaft, still exist. The central chimney, from which huge spits were once suspended for the roasting of quarters of oxen, has likewise been altered; whilst windows have been transformed into doors and doors into windows. Notwithstanding these changes, this type of kitchen is one of the most characteristic.

"The construction of the vaults," says

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Viollet-le-Duc, in his *Dictionnaire d'architecture,** "is eminently worthy of study. It once more shows us what a free use the architects of the Middle Ages made of the fruitful principles which they had discovered. The central vault is a four-sided curvilinear pyramid, with projecting groins in the four angles. The curved sides are built of brick, the groins of stone; and these latter support the keystone, pierced with a circular opening to receive the square central brick flue, which is surmounted by a little stone cupola. On to the four sides of the pyramid are joined semi-circular vaults. * * * But, in order to support the four projecting arches and the two heavily burdened hip rafters, the builder keyed up with semi-arches which, turned towards the outer walls, act as mainstays. Thus these arches exert little outward pressure and contribute largely to the support of the central vault, burdened with its heavy chimney."

It should here be pointed out that Viollet-le-Duc, misled by inaccurate drawings supplied by a friend, and which he reproduces in his *Dictionnaire,* is not scrupulously exact in all he says about this remarkable kitchen. Instead of belonging to the end of the fourteenth century, as he believed, the manner in which it is built, the ribs on pillars and vaults, and the mouldings to doors and windows all point to the second half of the fifteenth century as the date of its construction.



MONTREUIL-BELLAY—INTERIOR OF THE MEDIAEVAL KITCHEN.

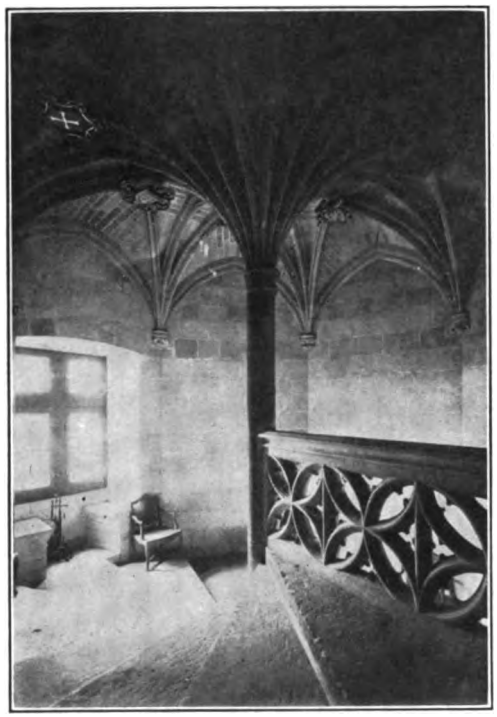
The adjoining Petit Château, which forms so picturesque a feature of the Montreuil-Bellay estate, is believed to have been the habitation of leading members of the Chapter. In each of the towers is a spiral staircase, and on one of the slate-covered roofs figure the arms of the Cossé-Brissac family—a souvenir of the seventeenth century.

*Vol. IV., pp. 478-479.

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The doors to the towers, as well as two other doors, and the double mullioned windows, possess prismatic mouldings. The rooms are about four yards and a half square, and are still floored with fifteenth-century tiles.

In visiting the Château Neuf, which dates from the end of the fifteenth or the beginning of the sixteenth century, we entered by a door in its large octagonal tower, which contains the main



Montreuil-Bellay—The Top of the Escalier d'Honneur.

staircase, the steps of which, alternately white and gray, are so gentle that, in the words of the person who described the castle in the eighteenth century, "a horse could easily mount to the third floor, forty feet from the ground." At the top of this *escalier d'honneur* is a beautiful fan vaulting, with bosses bearing the colored escutcheons of the various families who have owned the château.

Apart from the Château de Langeais, I cannot think of any private residence in Touraine where you can see such fine rooms as those at Montreuil-Bellay. The coloring may, as I have already said, be slightly overdone, but there are so many other features in their favor that that is soon forgiven and forgotten. The chimney-pieces are in the purest flamboyant style; the prismatic mullioned windows have recesses of extraordinary depth; and the decorated ceilings, with their huge beams, are so unique that they alone would easily provide matter for a special study. I spent nearly an hour examining these ceilings, and even then I had not exhausted all that they had to show. In their case I imagine that the hand of the restorer played a minor part; I was interested not so much by their designs and color as by the extremely curious mediaeval grotesques which are carved on the main beams in the dining-room, in the Salle de Longueville, in the Chambre de la Trémoïlle and in other rooms. Placed sometimes at the ends, sometimes in the center, these strange carvings produce a weird impression on the onlooker, carrying him back to the days when almost anything was licensed in art. The artist who executed them had evidently no fear of shocking the sensibilities of the inhabitants of the château, presuming that he did not receive explicit instructions to give free rein to his imagination. In one corner he has carved the head of a giant, in the act of swallowing a nude woman; in another, the squat figure of an animal, to be found nowhere in nature; in a third place, the body of a crouching dog with the head of a nun; and in a fourth, a grinning dwarf whose attitude is such as to preclude description. Many of them, in fact, have to be placed in this last category. You cannot imagine how realistic they are until you have seen them, and their realism is further heightened by the addition of color.

As regards the furnishing of the rooms, the Château of Montreuil-Bellay is a perfect museum. The countless works of art to be seen on all sides include carved Renaissance sideboards and beds, Boule cabinets, tables inlaid with tortoise shell, Empire chairs, seventeenth and eighteenth century clocks,

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Venetian mirrors, Nevers, Rouen, and Italian china, suits of armor and ancient weapons, seventeenth and eighteenth century andirons, firebacks bearing the arms of great families, ancient locks and keys, and a large number of other similar objects in wrought iron.

The tapestries deserve mention by themselves. There are two Brussels panels of the sixteenth century; one, which is incomplete, representing the departure of Paulus Aemilius for Greece; the other, which bears the words, "Perseus thesauros suos nave committit et frustra cogitans fugam in templo se abscondit," showing Perseus putting his treasures in a place of safety. Gobelins and Beauvais tapestries of the eighteenth century, depicting such games as blind man's buff and hot cockles are in the dining-room; whilst in other rooms are various others, including a series of Aubusson. The pictures, we were told, were less important than the tapestries; so, as our time was growing short, we forewent these and hurried to the Oratory, a little room which, though its painted walls and its vaulted, painted ceiling have lost much of their original richness and harmony, is still a place of beauty.

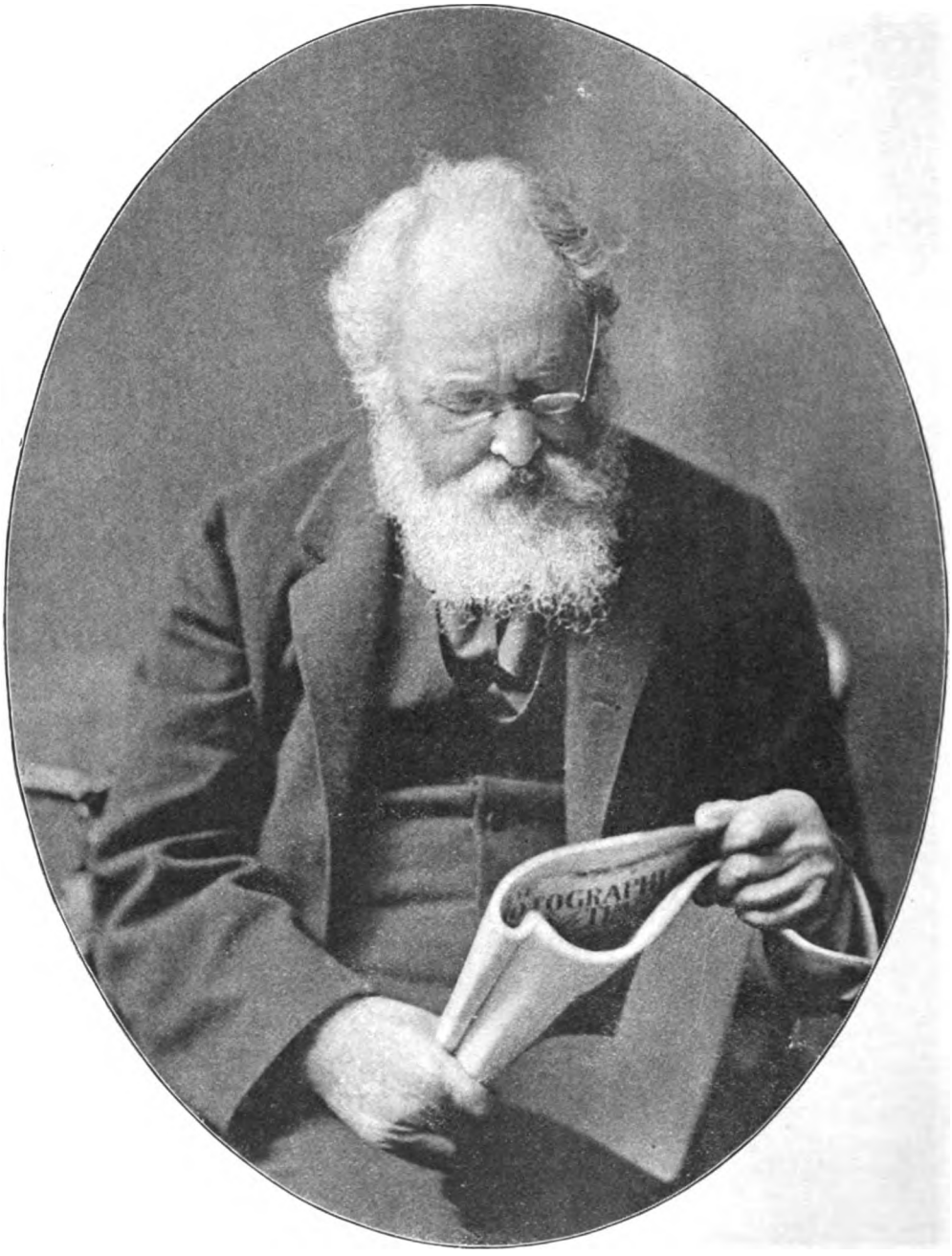
The garden, owing to the necessarily cramped space within the castle walls and its position on the slope of a hill, is not a feature of Montreuil-Bellay; consequently we did no more than pass through it by a gently sloping path which descends the hillside and leads to the public road on the bank of the river. Following this road, which replaced the rampart that once skirted the main branch of the stream, we soon came to one of the existing walls, terminated by a round tower at the water's edge and pierced by a semicircular doorway, bearing the date April 30, 1669. We passed through, and not far from there found our boatman. I can assure intending visitors to Montreuil-Bellay that there is no more fitting way of concluding their visit than by making an excursion on the river; for it will enable them to examine the remains of the fifteenth-century bridge which crossed the stream at this point of its course, to obtain certain views of the château which cannot be had from any other position, and—what is perhaps even more important, after seeing so much—to rest the eye in the green and shady nooks and corners of the islands of the Thouet.

Frederic Lees.



THE OLD NEW YORK CUSTOM HOUSE.
(The Merchants' Exchange, 1841.)

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THE LATE LEOPOLD EIDLITZ.
(From one of his last portraits.)

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NOTES & COMMENTS

BIG BOULEVARD PROJECTS

The autumn has witnessed some unusually extensive and interesting boulevard development. From San Diego, Cal., has come news of the completion of the surveys for a new coast route boulevard more than sixty miles in length, which is to be constructed as quickly as possible. Los Angeles reports the beginning of the surveys for a great boulevard that shall connect that city with Long Beach, on the coast, and from further north comes the report of an agitation for a water-view boulevard between Tacoma and Seattle. The project is to run the road along a series of bluffs that offer a wonderful natural site, financing it by obtaining the gift of the right of way from interested property owners and the cost of construction from the voluntary subscriptions of others. On the Atlantic coast, Governor Fort of New Jersey is interested in securing a system of State highways, of which an important one will be, it is said, "an ocean-front boulevard to be built from Atlantic Highlands to Cape May." Thus, as in the case of electric roads, the municipal problem is becoming the interurban; the automobile is making exactions of its widened field; and the suburbs of cities promise to change from concentric rings about the town to long radial lines stretching out from it wherever the way is most attractive.

BEAUTY IN PLAYGROUNDS

At the recent convention, which was held in New York, of the Playground Association of America, one of the speakers was assigned a novel theme—to plead for beauty in the playgrounds. Chicago, in which municipal playgrounds are conducted on a more elaborate and costly scale than anywhere else in the world, is now almost alone in giving serious regard to the aesthetic condition of the grounds; but the speaker showed how much beauty might anywhere be obtained on them at little cost, and with little area, and without trespassing on precious playspace, and he made a very urgent and persuasive plea—so that the subject was often referred to throughout the convention by other speakers, his paper having come the first day. Upon the architects he places some of the responsibility. "There is," said he, "the matter of the building, or buildings. These, as the dominating note of the space, can be treated as the culminating feature of an architectural layout. That ought to be planned at the very start, when walks are to be laid down, lights placed, the flagpole located, and the grounds perhaps graded. Close against the building there might be space for some bright flowers—and it may be that a little band of formal gardening could be arranged there." The wading pool, he added, "gives infinite delight. Its social service is such that almost any aesthetic shortcoming of which it might be guilty could be forgiven. But why should the pool have aesthetic shortcomings, why should it not be made the charming adjunct to the playground that it is in almost any other landscape? . . . A pergola at one side or end, making a shady place where mothers can sit and watch their children, incidentally makes a pleasant picture. A jet of water rising in the middle of the basin as a fountain adds much to the fun of the pool—and another element to its aesthetic charm."

Perhaps there should be added here, in connection with what was said of the aesthetic merit of those Chicago playgrounds which belong to the South Park System, that in the matter of fieldhouses Los Angeles also sets an example. The Playground Commission there has been fortunate in enlisting the deep interest of an architect—Sumner P. Hunt—whose refined taste and good color sense have made the little houses a delight to the eye in their interiors as well as in their exteriors. They are planned with all the care for aesthetic results that would be given to a private house—though one knows this only by the results—and there can be no question that their unconsciously elevating and refining influence on impressionable childhood is to prove one of the very good fruits of the playgrounds.

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TIDINGS FROM SAN FRANCISCO

In a recent copy of The Merchants' Association Review of San Francisco—the monthly journal of one of the most progressive organizations of business men in the country—there were chronicled three facts, interesting in themselves and in their significance. One recorded the formal indorsement by the association's directors of a design for an ornamental lamp post, to be used on the business streets. It was a design especially prepared by the Permanent Down Town Association—whatever that may be—for the lighting of its district, and the directors of the Merchants' Association recommended that the supervisors adopt it "as the official street light for the retail district north of Market Street and below Sutter Street," and that in that district "all poles and lamps erected on the sidewalks for street lighting purposes conform" to it. This indicates the taking of an unusually advanced and intelligent position in regard to a matter on which merchants are often careless or unwise. Another item quoted without display an official report of an assessor who, addressing the mayor, states that "the present assessment on buildings is but $6,833,665 less than that of 1905"—the year preceding the fire; and that "the assessment next year of buildings now in course of construction will increase the total assessment of buildings beyond that of 1905." The final item was a single paragraph reading, "D. H. Burnham has prepared new plans for a union railway depot opposite Van Ness Avenue on Market Street. The plans provide for a plaza facing Market Street on the south side, between Eleventh and Twelfth Streets, with the depot facing it on the south side. Across Market Street is a semicircular space, from which would radiate Van Ness Avenue, and a new avenue to the Park Panhandle. The plaza on the south side would be connected by new roadways with the docks and with Mission Street." The great plans which Mr. Burnham made for a city beautiful in San Francisco are not, after all, wholly barren of results. For, according to this notice, the site now proposed for the Union Station is only a few hundred yards from the one he recommended in the famous report—and spectacularly the change would seem rather for the better than for the worse; while the "semicircular space" across Market Street and the radiation of the thoroughfares from it, is exactly as was projected in the report. And it should be added that the center thus planned was one of the most important and most impressive in the whole scheme.

DATA FOR CITY PLANNING

Attention has been called to the intense seriousness which the Germans and English attach to that town-planning which we Americans are prone to undertake so lightly. Professor Geddes, of Scotland, has made this point very urgently, and under his direction, the Civics section of the (British) Sociological Society has taken it up. Raymond Unwin, also, in a letter to the London "Times," endorses the proposal that prior to making a town plan for an English community it would be well to hold a public local inquiry, and perhaps an exhibition as incident to it. Says Mr. Unwin: "The advantages of this course would be many. It would arouse local interest and would, better than any other course, secure that a complete knowledge of what was about to be done should be obtained by all those likely to be interested or affected by the scheme. It would afford an opportunity for suggestions to be made by local associations, professional or lay, which suggestions made at this preliminary stage would in many cases prove of the utmost value. Moreover, if such an inquiry were presided over by a representative from the Local Government Board, who was himself an expert on the subject, having a thorough knowledge of all information available and of the experience gained here and in other countries, he would be able at such inquiry, by means of suggestions, to put before the local authority in the most acceptable form all this valuable experience." Almost coincident with this letter from Mr. Unwin, there has appeared in a New York paper a letter giving an account of an exhibition of Parisian life during the "romantic period," from 1830 to 1848, shown in the late summer and early autumn, by the directors of the Municipal Library of Paris, as part of the work of the recently created historic section. "One finds," says the letter, "a complete 'reconstitution' of Paris, by means of maps, prints, sketches, costumes, models of public carriages, theatres, restaurants and places of public resort. There are panoramic views in colors taken from the Buttes Chaumont and from the Square Tower of Saint Gervais. The fashionable gatherings in the galleries of the Palais Royal, smart restaurants, such as the Trois Frères Provençaux, and the Rocher de

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Cancale, frequented by Balzac, Gavarni, Victor Hugo, Alexandre Dumas and Lamartine, are presented in prints, pamphlets and journals. . . . A dozen caricatures, drawn by the English artist Rowlandson, show us what the French racecourses and boulevards were, and reveal the elaborate attire of leaders of the fashionable movement of the day. Pleasure parties are depicted seated in the shrubbery of the Champs Elysées, sipping wine and nibbling at cold fried potatoes." All this, though it may not seem at all relevant to the layman, would be really very helpful to the conscientious city planner, for it is out of such material that he can get the local color, the feeling and spirit, that individualizes a city; and without which his plan were better never made.

A STUDY OF MUNICIPAL ACCOUNTS

A law that was enacted in Massachusetts in 1906, requires the accounting officer of every city and town in the State to submit to the chief of the Bureau of Statistics of Labor each year an exhaustive record of all the receipts and expenditures of the community, and a statement of its financial situation generally. The immediate object of the law was to afford opportunity for comparisons, and these are made in a very interesting way—to the extent of some three hundred and fifty closely printed pages—in the recently issued "First Annual Report on the Comparative Financial Statistics of the Cities and Towns of Massachusetts." The records cover the municipal fiscal years ending between Nov. 30, 1906, and April 1, 1907, and are brought out under the supervision of Charles F. Gettemy, Chief of the Bureau. Obviously, it is impossible to summarize or adequately to review such a volume. The best one can hope to do is to pick out some of the interesting matter, and for readers interested in architecture this is made more difficult by the circumstance that no general table has been prepared regarding expenditures for public buildings. But there remain some matters of general, if not of strictly professional, interest. It appears that the thirty-three cities of the State have a total valuation, as determined by their assessors, of more than two and one-half billions of dollars, and that the 259 towns have a valuation of about eight hundred millions. With a total debt of only a little over two hundred and six million dollars, there are about fifty-five million dollars in the sinking funds. In short the net debt of all the cities of Massachusetts is less than five per cent. of even the valuation named by the assessors, and of the towns the net debt is only 3.07 per cent. of the valuation. Yet Massachusetts cities and towns are, on the whole, the most finished community products in the United States. It would not appear from these figures that good town and city building involves bankruptcy.

In the expenditures for parks, interesting contrasts appear. Among the twenty cities outside the Metropolitan Park District which surrounds Boston, much the largest per capita expenditure for this purpose—50 cents—is made by Springfield. New Bedford, with the same population, expends 21 cents. And as New Bedford's area is 20 square miles, against Springfield's 32, its density of population, and presumably therefore its needs of parks, is much the greater. So again, Beverly, one of the smallest cities of the Commonwealth, having a population of only 15,614, spends more money for parks than does the industrial city of Fitchburg, with more than double Beverly's population and a higher local valuation. In fact, Fitchburg was spending only six cents per capita for this purpose. Thus there appears the value of such a comparative study in probably awakening cities that are remiss to an appreciation of their shortcomings. Another interesting comparison in this connection is that between Haverhill and Brockton, their populations mainly devoted to the same industry and only eleven thousand apart in number. Brockton is the larger but spent only $738 for parks in 1907 against Haverhill's expenditure of upwards of ten thousand dollars. Yet if the pepole of Brockton have opportunities for relaxation in the facilities afforded by cheap car fares to Plymouth and Nantasket, the people of Haverhill are no more dependent on the municipality for breathing space and recreation, having ready access to the attractions of the Merrimac River, to the beaches at its mouth, and to New Hampshire resorts.

For the three holidays—Memorial Day, Fourth of July and Labor Day—for which municipal appropriations are quite commonly made, it is found that the average per capita appropriation by the thirty-three cities of the State is not quite three cents. Boston spent four and a third cents; Worcester, which is second in population, spent less than one and a half cents per capita. Every one of the cities made an appropriation for Memorial Day; but fifteen did not make any for the Fourth of July, and for Labor Day only four made appropriations.

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As Mr. Gettemy says, If the statistics of the volume do not answer, they certainly raise many interesting questions.

DENVER'S MODIFIED SCHEME

Nearly three years ago, in a report to the municipal art commission on the improvement possibilities of Denver, Charles Mulford Robinson stirred the town with a scheme for a civic center, of which the capitol should be the crown. It was a new idea in Denver, and stories are still told of how its dramatically sudden and unexpected announcement thrilled the city and laid hold of the people's imagination; of the weeks during which the papers carried columns of letters on the subject; of the great dinner to discuss its financing, when eight hundred applied for seats in a room that would hold only four hundred; of the long fight by taxpayers who feared the expenditure of the necessary three or four millions of dollars, and finally of the defeat, by a slender and unconvincing majority, of the bond issue proposed for this purpose. But at the same time the administration, which had shown itself brave enough to favor the plan, was handsomely re-elected; and as the project would not down the mayor appointed a year ago, with the approval of the art commission, a committee of citizens to consider the matter further and to see whether there might not be planned a modification of the scheme that would give a similar effect at lessened cost. This committee has lately reported, and its recommendations in printed form have been widely distributed.

The committee included some of the largest taxpayers, the chairman of the art commission, who had been heart and soul for the Robinson plan, the chairman of the park board, and three of the leading real estate dealers. It was representative in the fairest sense. A good chance brought Frederick MacMonnies to the city, and he was consulted. He suggested a modification that was worked out with careful detail by local architects, and then submitted to Mr. Robinson, who approved it—though distinctly, of course, as a cheaper substitute; to Mr. Kessler, who was making boulevard plans, to F. L. Olmsted, Jr., to A. R. Ross, and to F. D. Millet. All the latter gave their approval. It so swings the axis of the Robinson plan as to thrust the scheme into what may be called a second-rate residence district instead of into valuable business property, thus very largely reducing land costs, while giving a similar spectacular effect to that promised before, only making sacrifices that are more evident to the artist perhaps than to the average citizen. Incidentally it involves for its completion a new site and structure for the county building instead of making use of the present court house, as did the original plan, but as the court house now occupies very valuable land this will mean no added expense. The committee says of the plan, which is herewith illustrated: "It contemplates the acquisition by the city of the block on Broadway facing the capitol, of the balance of the block on which the library now stands, of the Bates triangle, and of a corresponding tract to the south of West Fourteenth Avenue. The space would be treated as a cruciform plaza, containing an ornamental fountain and a stadium for outdoor meetings and music. The library and the Pioneer monument would be included in the plan, which would also afford sites for corresponding erections on the opposite side. Although not contemplated as part of the proposal, an unrivaled site facing the capitol at the west end of the plaza would be available for such a structure as a city and county building." The estimated cost of the new plan is only one and a half million dollars; and among the bodies that approved it by formal resolution before it was given to the public are the art commission, the real estate exchange, the directors of the chamber of commerce, of the library commission, and of the Colorado chapter of the A. I. A. The committee makes strong appeal to the pride and ambition of Denver to carry out the plan.

The Architectural Record Company, through its publications, the Architectural Record and "Sweet's" Indexed Catalogue of Building Construction, is the centre of an organization for a national cooperative movement among architects, owners, manufacturers and all interested in building, the object of which is to promote the cause of good architecture, sound construction, honest materials and thorough craftsmanship. Information will be furnished on request to all interested.

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Recent Books on Architecture and Building

THE CHARM OF THE ENGLISH VILLAGE*

"No country in the world can boast of possessing rural homes and villages which have half the charm and picturesqueness of our English cottages and hamlets," says Mr. P. H. Ditchfield, in a very attractive book, in which numerous charming pen-and-ink sketches by Mr. Sydney B. Jones give a distinctive meaning to the subject for not only the architect, but for the student and the large class of American people who are about to build their own homes in suburbs and country. For the architect this volume contains much suggestive matter for honest and wholesome design. A basic principle of architecture which Mr. Ditchfield especially emphasizes, and which is for American architects of high importance, is the matter of materials. He says at some length that one of the strong reasons for the charm of English villages is to be found in the fact that there one finds architects and builders using in their rural structures those materials which are obtainable at or near the site, and which, therefore, most readily lend themselves to artistic designing in their respective localities. The author does not extend this meed of praise to contemporary English suburban design, in which he deplores the extreme bareness of effect and the paucity of ideas. To how much greater a degree does this bareness of aspect and this paucity of ideas find its application in the common run of American work! And how much less desirable is the result! Compare, for example, in the matter of appearance, the village streets of any of the smaller towns in the vicinity of New York, along any of our great railroads—in Westchester, out in New Jersey, or on Long Island—with such views as those which the author gives in West Wycombe, Bucks; Biddenden, Kent; or Burwash, Sussex. In our own case one finds the most heterogeneous joblot of utterly commonplace structures, erected without perceptible regard for either comliness or stability; whereas our English cousins, even in their most unpretentious erections, show a truly remarkable regard for these qualities of artistic and worthy building. Where in America can one find a treatment of the garden fronts which presents the respectability of appearance that one encounters in that view of the village of Burwash in Sussex, referred to above?

The charm of the English village does not depend only upon the general comity of appearance of its garden and their houses, as viewed by the passerby. On the contrary, there must be taken into account these other important components of life in the villages—the village church and its rectory, the inns, shops and mills, almshouses and schools, the picturesjue roads, bridges and rivers and the rest—which are delightfully described by the author and so aptly drawn by the artist.

*The Charm of the English Village. London: B. T. Batsford; New York: Charles Scribner's Sons.

SIR CHRISTOPHER WREN*

Sir Christopher Wren was a great architect. Not only the profession realizes that, but the well-informed reader knows it. The architect of to-day knows Wren as a master-builder, as the man who created the design of St. Paul's Cathedral in London, who contributed notable buildings at both Oxford and Cambridge Universities, who restored portions of many of the English cathedrals, who invented the steeple form of churches of which he built a great number in London, and who did a multitude of other buildings. These are Wren's physical monuments which go to show that he was the transplanter of the Renaissance into England. But there is more to be said about Wren than the fact that he was a great architect, and therefore built buildings of recognized architectural merit. He was something more than an architect in our sense of the word. He was a student of the sciences, an astronomer and a mathematician, a *litterateur* and a master-mind of his age, fitted by training and experience to occupy the most exalted positions of trust in the councils of his country. His culture was broad and thorough, and if he had chosen to devote his life to the study of the celestial bodies he would, no doubt, have attained such prominence in that field as he did in the practice of the profession of architecture, to which a combination of circum-

*Sir Christopher Wren by Lena Milman. London: Duckworth & Co. New York: Charles Scribner's Sons.

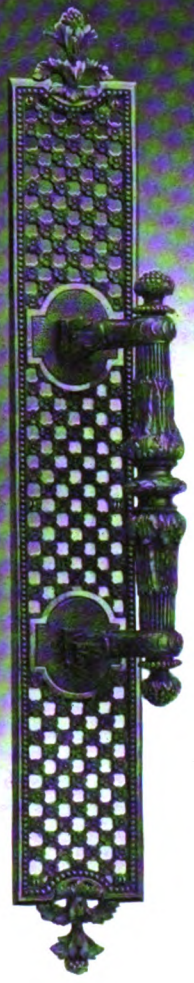
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stances accidentally led him. His life, fortunately or unfortunately, fell in a period of religious and civil turmoil, and it is the more remarkable that he was able to accomplish so much. A characteristic instance of the energy and executive ability of the man is cited in a volume on his life and work, which is the occasion for the foregoing remarks. After the great London fire of 1666, Dr. Wren, as he then was, was commissioned by Charles II. to make a report on the damaged church of St. Paul and to make suggestions and draw up plans for its rebuilding. Impatient at the delay incidental to the removal of the debris from the site (some thirty-seven thousand loads had to be removed), Wren had built for his personal use in making immediate observations, an elevated platform, from which he could at once begin his task. His devotion to the work was complete, as he was an engineer as well as an architect—that rare combination of talent which is scarcely known in the profession to-day. Too often with us the engineer occupies the predominant position in important constructions, and rightly, because of his superior and accurate technical knowledge. The architect must then be content to play second fiddle, his work in a sense governed by the actions of his professional superior. Whether this subjugation is inevitable and the result of present conditions, is a debatable question; but the conclusion is inevitable that the architect, as we know him, is a very different person from the architect of Sir Christopher Wren's time. He is less of the scholar and more of the man of commerce. With this idea in mind, the life of perhaps the greatest architect of the English Renaissance becomes especially interesting.



SAUMUR—THE CASTLE AS SEEN FROM THE STREET SKIRTING THE LOIRE.

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EXAMPLES OF HARDWARE

DESIGNED AND EXECUTED BY

FONTAINE & VAILLANT, PARIS

FOR THE

BROOKLYN ACADEMY OF MUSIC

Herts & Tallant, Architects John Thatcher & Son, Builder

Door Pull

Push Plate
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"Target-and-Arrow Old Style" Tin Used in Restoring Historic New York Tavern

Fraunces' Tavern, at Broad and Pearl Streets, New York, famous for its historical associations, presents another instance of judicious discrimination in roofing material.

The building, first used as a dwelling, but since 1762 as a tavern, was particularly notable as being the headquarters of General Washington and the scene of his farewell to his comrades at the close of the Revolution

Recently the tavern has been restored to its original Colonial dignity by the New York Society of the Sons of the Revolution, and for the roof "Target-and-Arrow Old Style" tin was selected as being the best possible roofing to be had at any price.

"Target-and-Arrow Old Style" tin also has a history that is remarkable of its kind. It is a history of durability far beyond that of any other tin or any other roofing material.

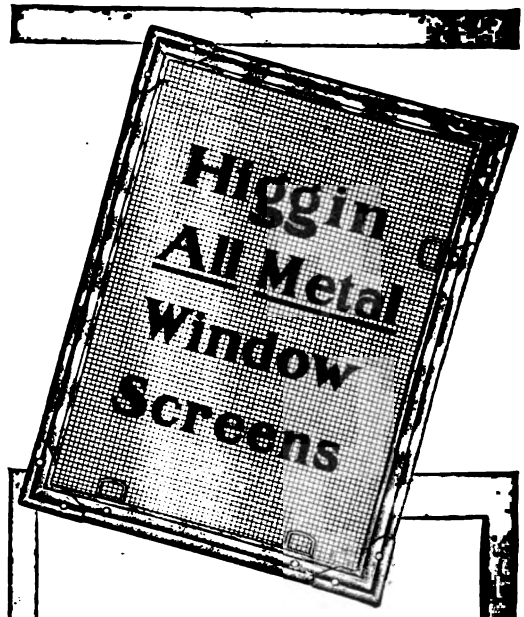
We are pleased to send our booklet, "A Guide to Good Roofs," to architects or their clients.

Look up our new catalogue on pages 407-409 of Sweet's Index (out in December). It contains useful data for preparing estimates for tin roofing.

N. & G. Taylor Company
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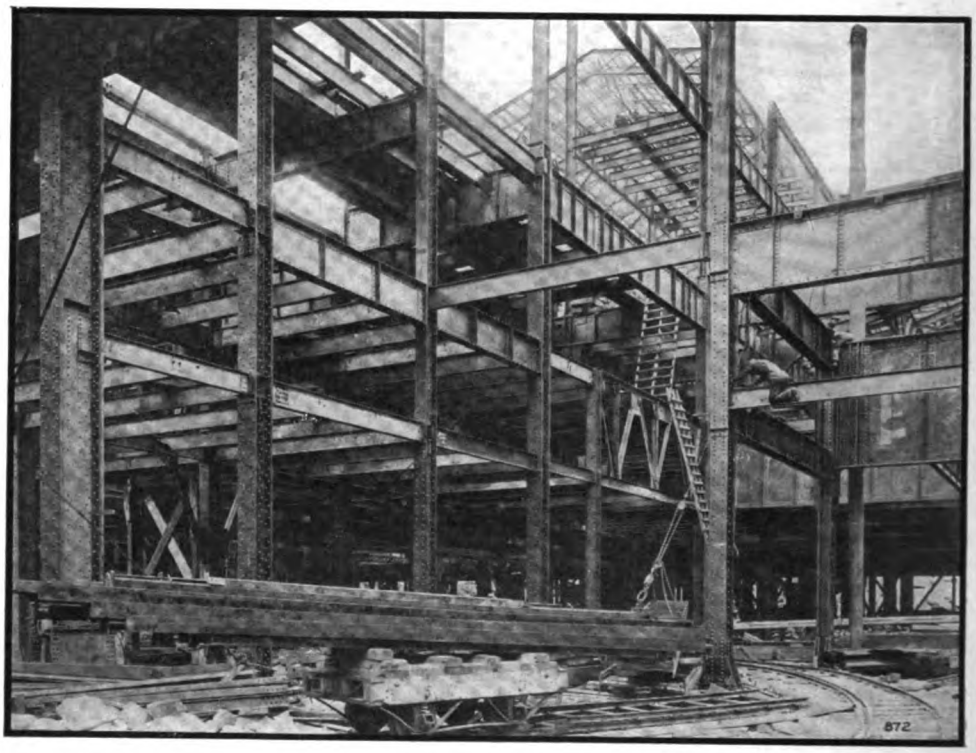
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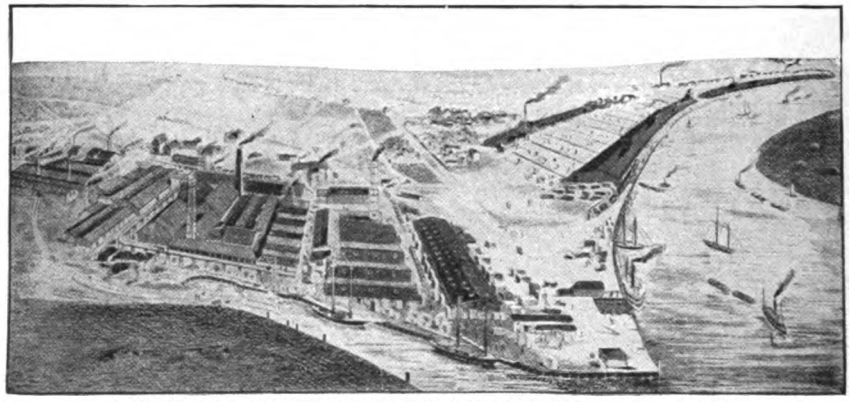
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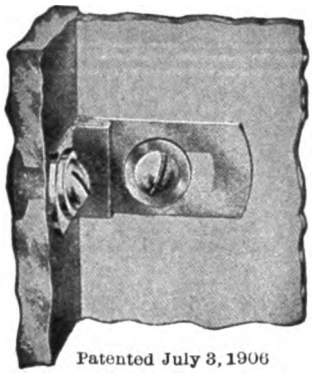
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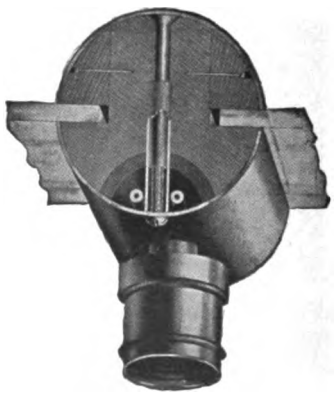
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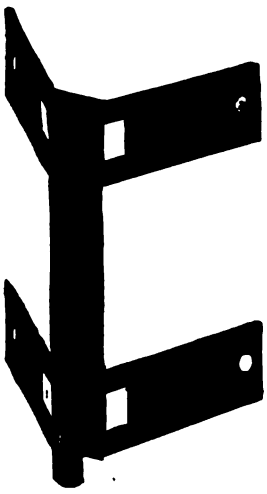
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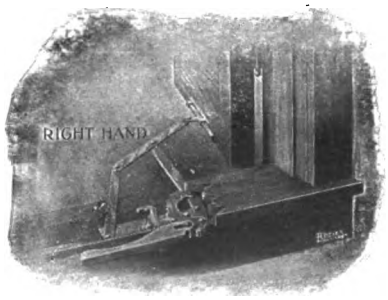
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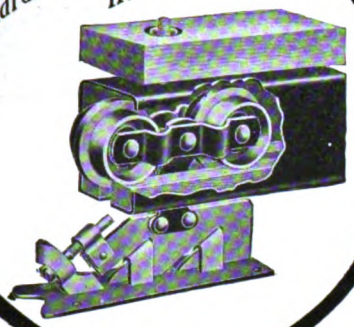
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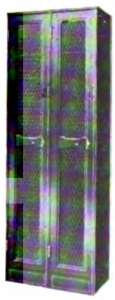
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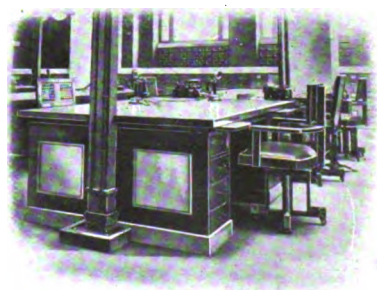


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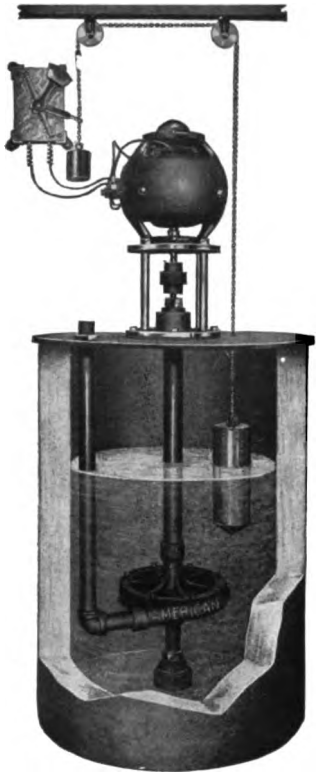


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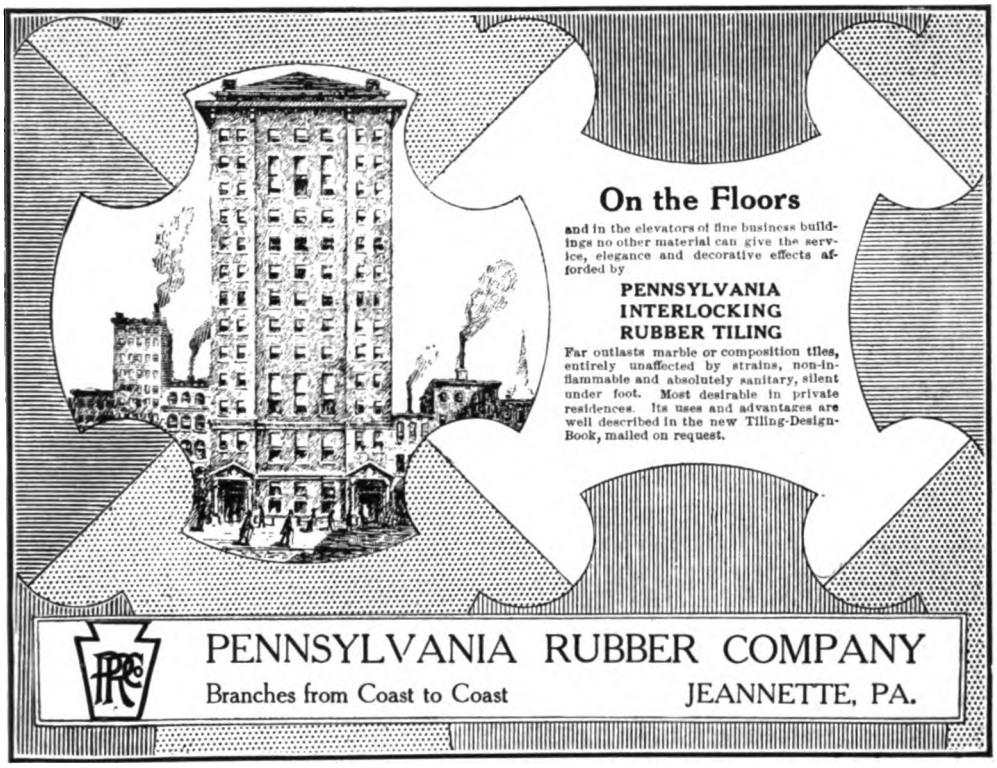
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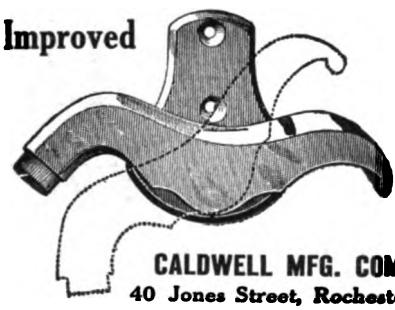
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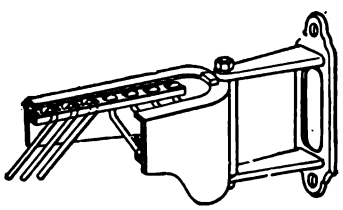
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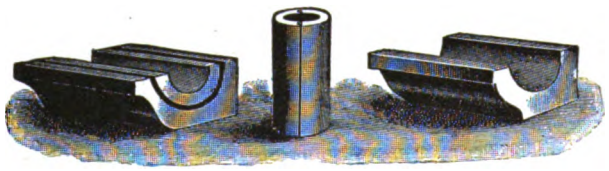
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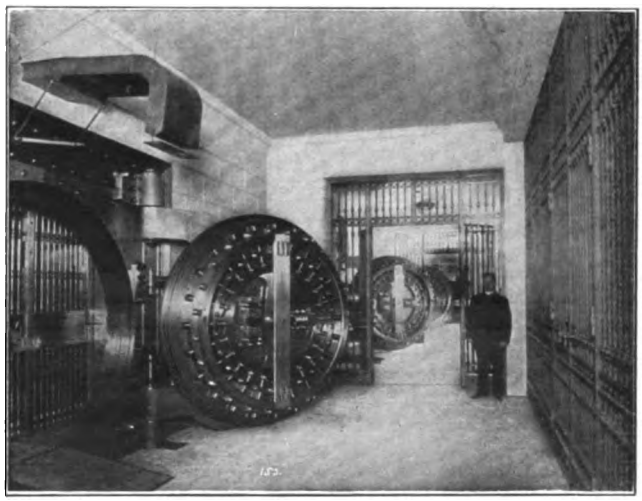
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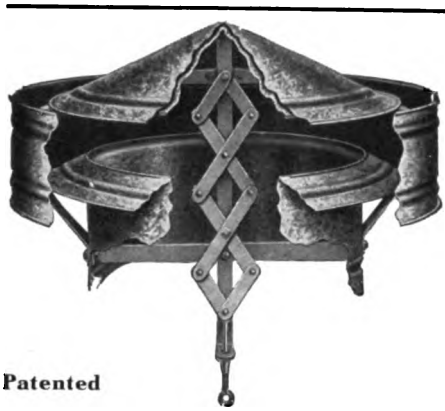
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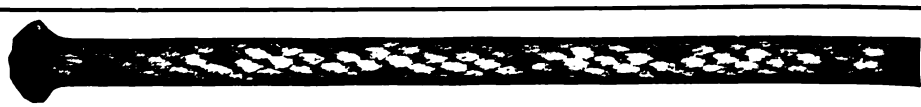
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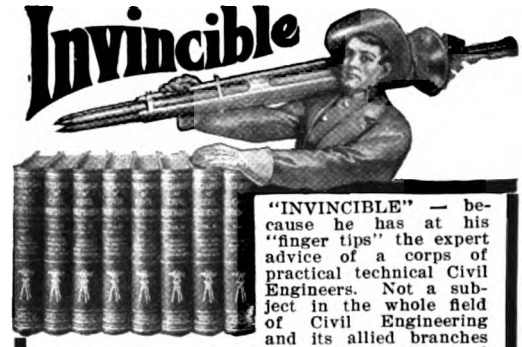
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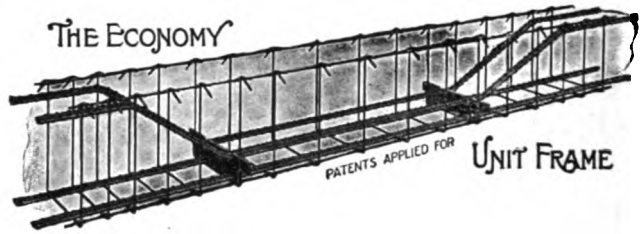
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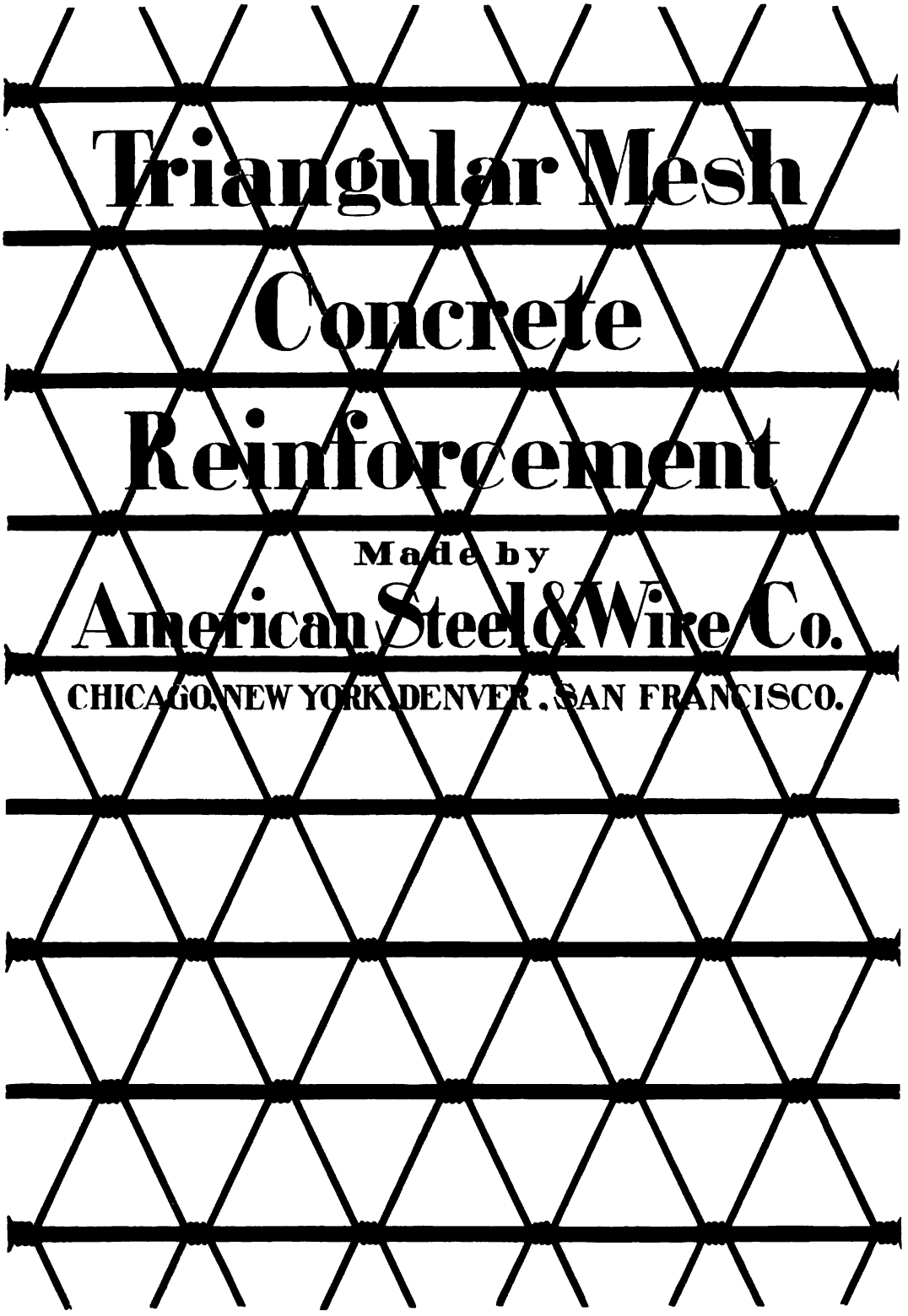
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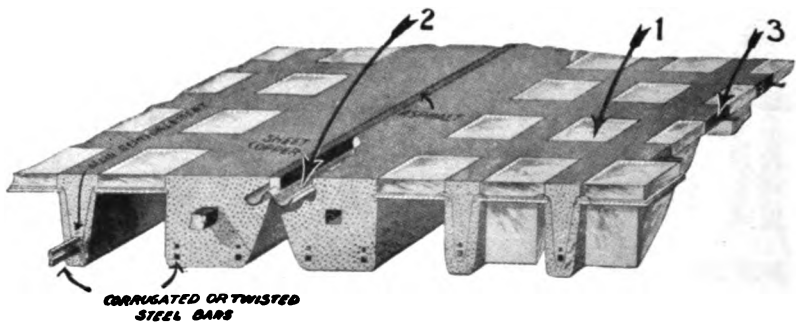
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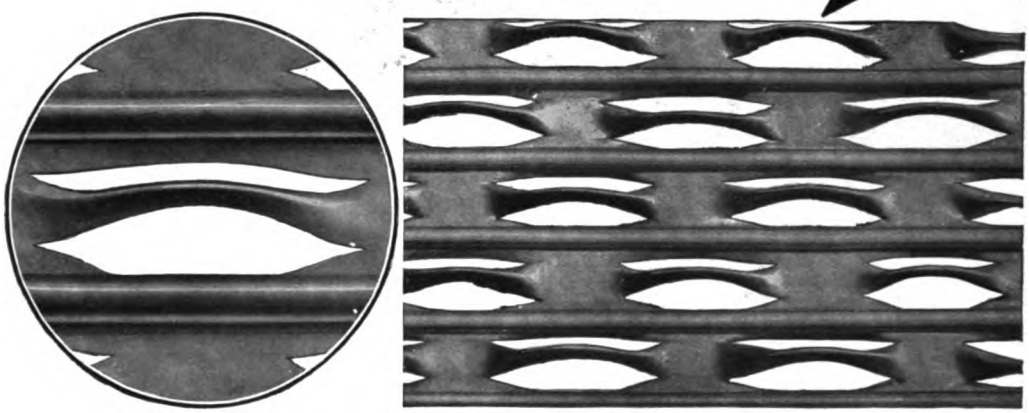
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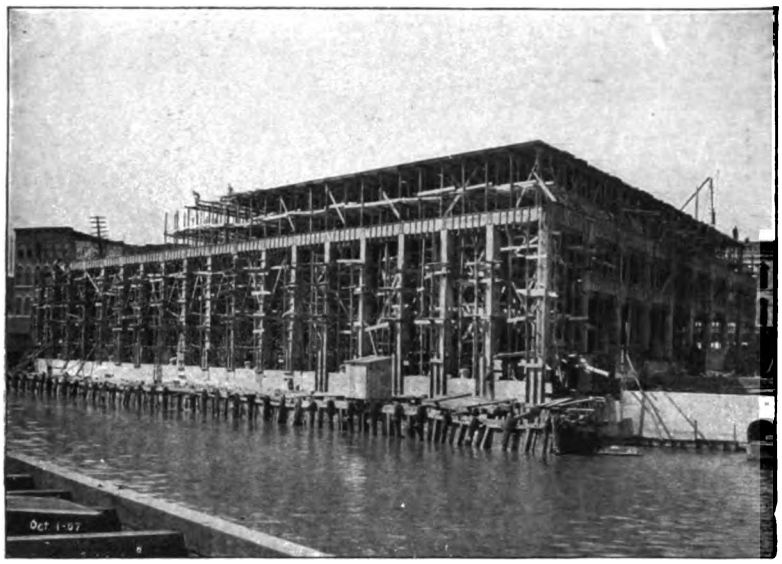
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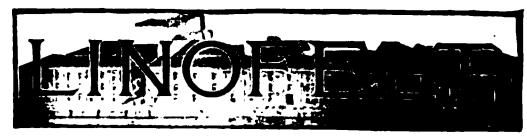
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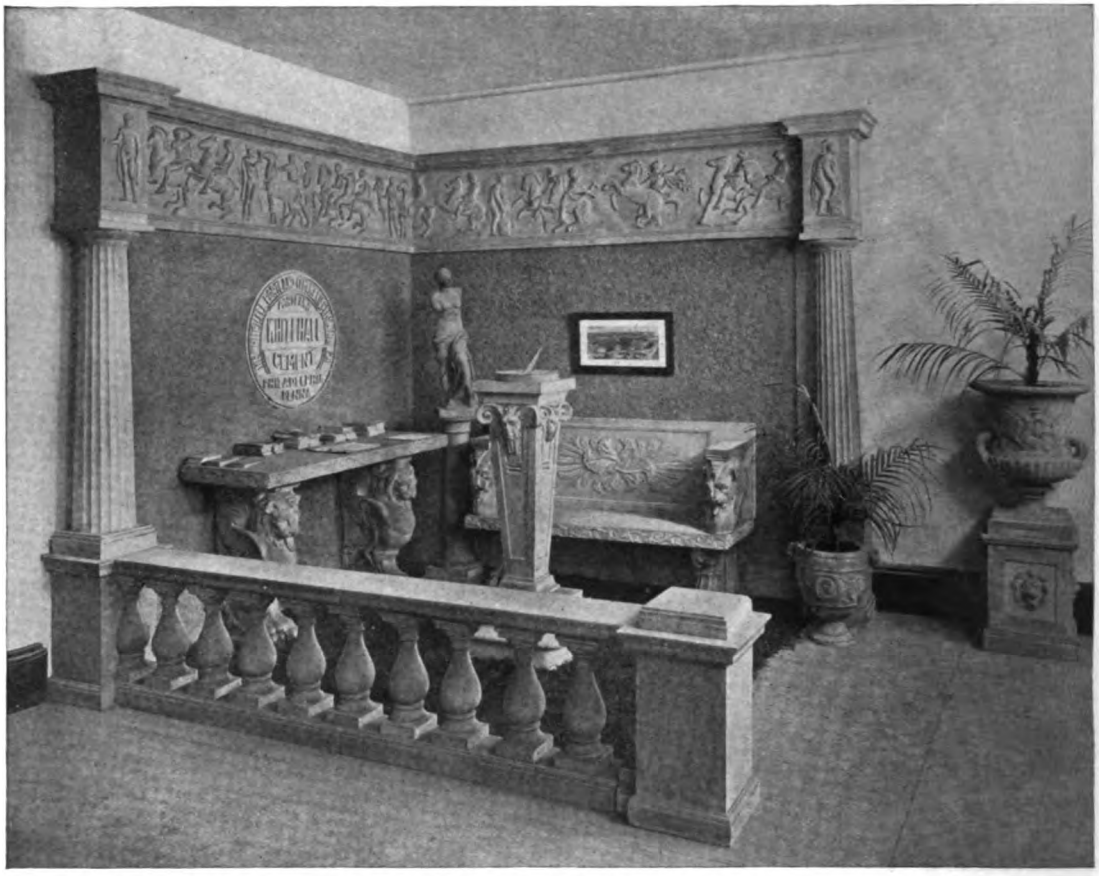
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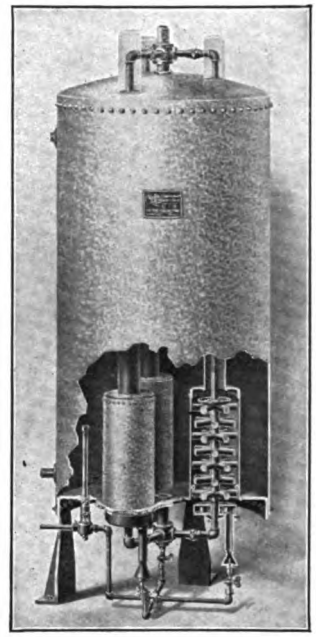
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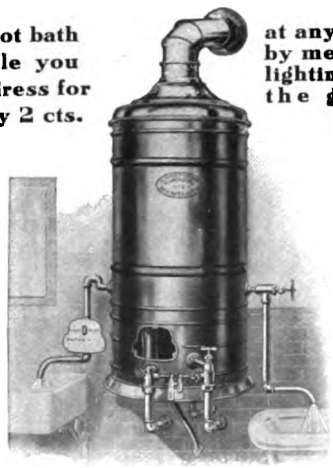


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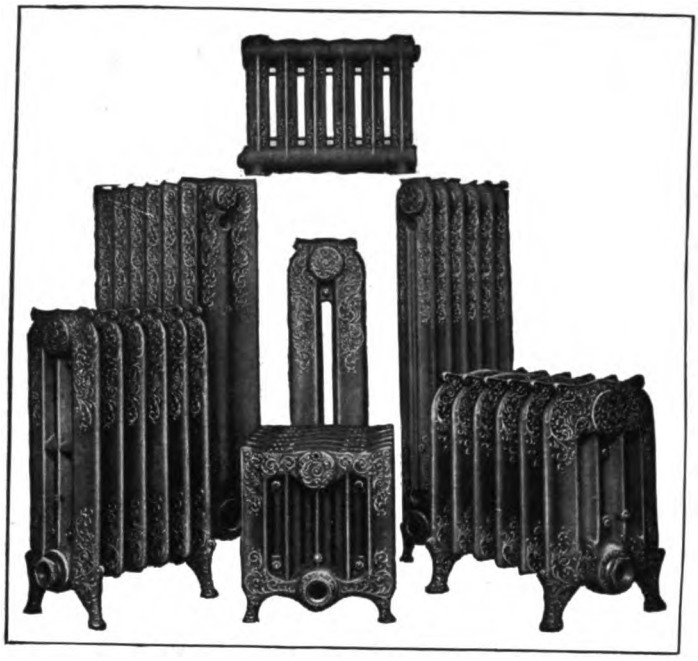
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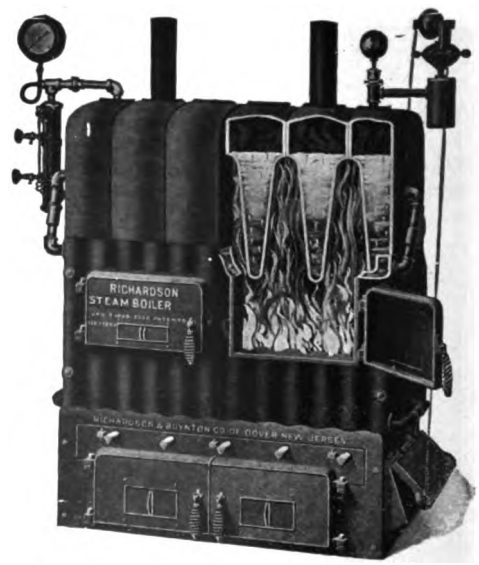


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The style "D" has a special high base with a sifting grate that will sift the ashes inside the heater without dust or dirt escaping, and will furnish a good fuel for banking the fire.

A Blue Book describing all styles will be sent on request.

Pierce, Butler & Pierce Mfg. Co.

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KEWANEE BOILERS ARE BEST WHEN *COLD* WEATHER COMES

Thirty-five cold winters have proven it. They can't give out when the cold snap comes —have been thoroughly tried. Thousands of pleased people are using them. Many good architects are specifying them because they are *best.*

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Durable
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Safe

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KEWANEE, ILLINOIS

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We guarantee

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because we know that it is made by skilled labor, on the best braiding machines and from the best stock obtainable.

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Harmony in design and color should be carefully studied where the interior of the home is concerned. We execute decorations and furnishings from our own original designs which give that individuality so essential in the modern home. :: :: :: ::

CHEAPEST Way on Earth to Heat Water

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The Only Right Way to dispose of Perishable Refuse. See "Sweet's," Vol. 2

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THE HONEYWELL HEAT GENERATOR

and know that it is working a revolution in hot water heating plans and figuring.

6,000 Honeywell Heat Generators have been installed

"Must Be Something In It"

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for roofs of coal, tar pitch, tarred felt and slag, gravel or tile, has been adopted by architects and engineers everywhere. Send for Barrett Handbook.

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Baths and Lavatories

are always preferred for the most modern homes because they insure better sanitation and greater satisfaction in use than any other plumbing equipment made.

Write for our beautiful new 100-page book—"Modern Bathrooms." This illustrates and describes a series of the most attractive bathroom interiors. You will find it of great assistance in connection with your sanitary arrangements. Send for your copy now. Enclose 6c. postage, and give name of your architect and plumber if selected.



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The high quality possessed by these valves has earned for them a reputation that is world wide. In metal, in design and in workmanship they come up to the requirements of the most exacting service. Accept no valves as Jenkins Bros. unless they bear trade mark as shown in the cut. *Write for catalog.*

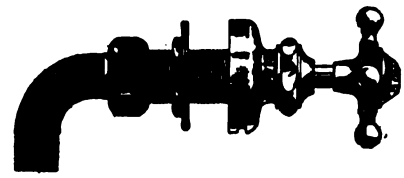
JENKINS BROS., New York, Boston, Philadelphia, Chicago

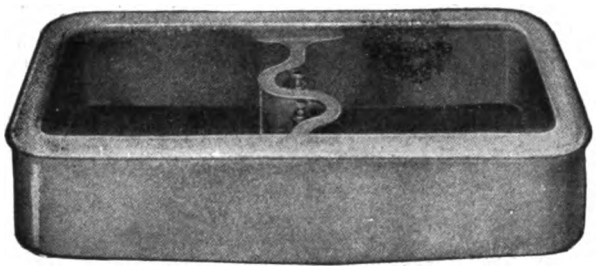
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Neat, Compact, Never Leak, Inexpensive

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Butler's Roll Rim Pantry Sink with S-Partition, covered completely with Copper, German Silver or Nickeline.

Established 1850

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DRAINBOARDS AND PANTRY SINKS

COVERED WITH GERMAN SILVER



BOSTON COPPER RANGE BOILERS

are the BEST made
and are all GUARANTEED



We make four grades. to meet every demand of QUALITY and PRICE. We make Pressure Boilers to stand any required pressure up to four hundred pounds.
Designed in every detail to give long and reliable service. Embodying only highest grade materials and skilled workmanship in their construction. Special sizes to order.

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Largest Manufacturers of Copper Boilers in New England

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Vacuum Cleaning Apparatus for all purposes

Principal Office and Factory **Hartford, Conn.** **Agencies in all large cities**



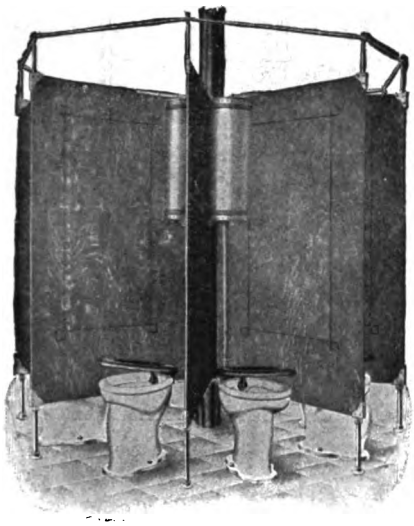
THE GORTON QUICK OPENING RADIATOR VALVE

Can be used with any low pressure Vapor or Vacuum Systems of Heating.
One third of a turn of the lever handle will open or close the valve.

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LIGHT AND AIR IN PUBLIC TOILET ROOMS

The use of the Kelly Octopus Fitting takes closets away from the walls and arranges them rationally in circles in the middle of the room, surrounded by light and air. The walls are left free for lavatories and windows.

The Kelly Octopus Closet Fitting cuts in half the space heretofore necessary for public toilet rooms.

Partitions are fastened to our special fittings around the main stack—closets are bolted to the Octopus Fitting and are supported independent of the floor.

Each closet is 20 inches from the main stack, and has independent discharge into the stack. No back venting is required, and every closet has perfect ventilation—not possible with the customary long runs of pipe.

Write us for prices on the Kelly Octopus closet fitting. We will detail the application of this fitting for any public toilet room on receipt of blue prints.



Kelly Octopus fitting (patents applied for), when set in place, completes the roughing in for eight water closets. Note that this fitting is a one-piece casting.

THOS. KELLY & BROS.

Congress St. and 46th Ave., Chicago

The "Onliwon"

Toilet Paper Cabinet

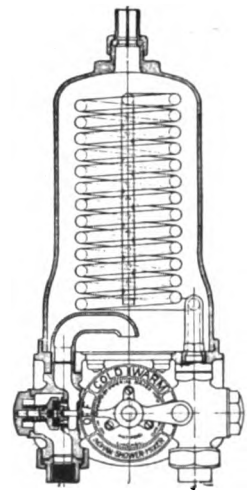


Delivers units of two sheets uniformly, invariably and *silently* eliminating the waste and litter incident to the unprotected roll or cabinet. Nickel plated steel *locked* cabinets for hotels or other public places. Handsomely ornamental metal for residential use.

Booklet showing **special designs for new construction** will be sent architects or others on application.

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Shower Baths



"INGRAM" SHOWER MIXER

The heat of the steam is given to the water by *radiation* before the two are finally mixed.

One handle opens and closes both steam and water valves; automatically opens water valve first and closes it last. Live steam cannot reach the shower head.

Chicago University say: "The only satisfactory and safe shower bath mixers we have found."

Wisconsin University ordered 36 mixers after most thorough investigation of all similar devices.

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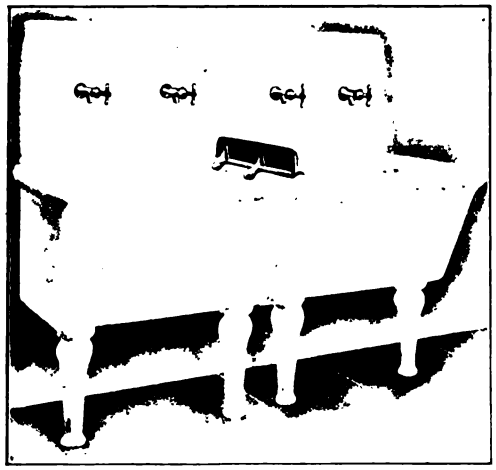
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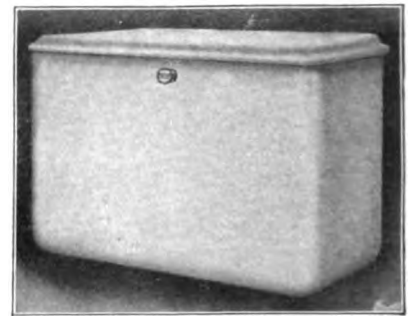
"PERFECTION"



American Porcelain Co.

NEW BRIGHTON, PA.

White Bathrooms



"White as snow, impervious as flint."

The "Kazoo" white porcelain enameled all steel closet tank permanently completes the white bathroom.

The "Kazoo"

Guaranteed Impervious to any water on earth

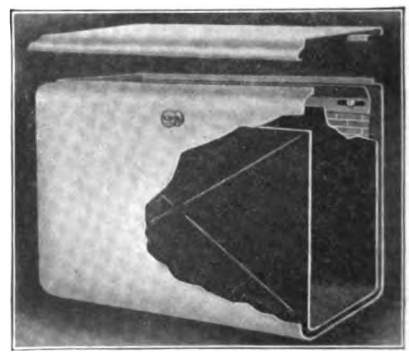
No wood—No copper—No lining—No composition and No solder—every perishable substance eliminated.

Two all steel porcelain enameled tanks, with air space between.
Outer tank is one piece of steel.
Inner tank is one piece of steel.
Both tanks porcelain enameled inside and out.

CAN'T LEAK—No seams or joints.
SWEAT? No; our ½ inch air space prevents it.
WEIGHS less than a wood tank, costs no more.

Catalogue "D" for the asking

The Enameled Steel Tank Company
Kalamazoo, Mich.



"Note air space between tanks—prevents sweating."

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Prominent Hotels

we had reproduced and shown in some of our recent advertisements?

Pretty strong, weren't they?

No surprise to us.

We know what our goods are

We are convincing the leading Architects and Plumbers that

"Paragon" Plumbers' Brass Goods are the Best

BECAUSE

Quality is the first point we consider

in the manufacture of our product, which, added to that distinctiveness in design, produces a result in uniformity and richness not found in other goods. As

"Paragon" Goods are always guaranteed

You are not taking any chances in specifying them.

THE SANITARY COMPANY

CLEVELAND, OHIO, U. S. A.

Exclusive Makers of "Paragon" Plumbers' Brass Goods

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"Ideal"

Solid Porcelain for the Home Bathroom

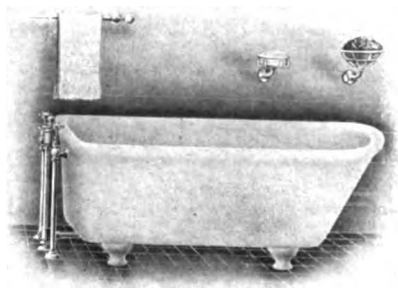


Plate 4-K

An "Ideal" Solid Porcelain Bathtub of light construction has become a necessity for installation in modern sanitary home bathrooms.

Our plate 4-K "French" pattern "Ideal" Solid Porcelain Bathtub is the most desirable fixture for your bathroom. Made entirely of clay materials, fired to a hardness with the strength of rock, with no metal to rust or corrode, no danger of peeling, as the glaze is an integral part of the fixture. Nothing can discolor the surface, as it is not affected by the action of acids from soaps or bath powders, and needs no cleaning preparation to keep its pure, white surface free from dirt.

Thousands are already giving genuine satisfaction in homes, apartments and hotels throughout the world.

Send for Catalogue "P-K," showing representative fixtures from our complete line.

The Trenton Potteries Company

Main Offices & Works, Trenton, N. J., U.S.A.

THE CANADIAN TRENTON POTTERIES CO., Ltd.

St. Johns, Quebec

An Attractive Shower for Private Residences or Clubs

One of the 150 styles and sizes which we are prepared to furnish on a few days' notice.

Write for Catalogue "G."

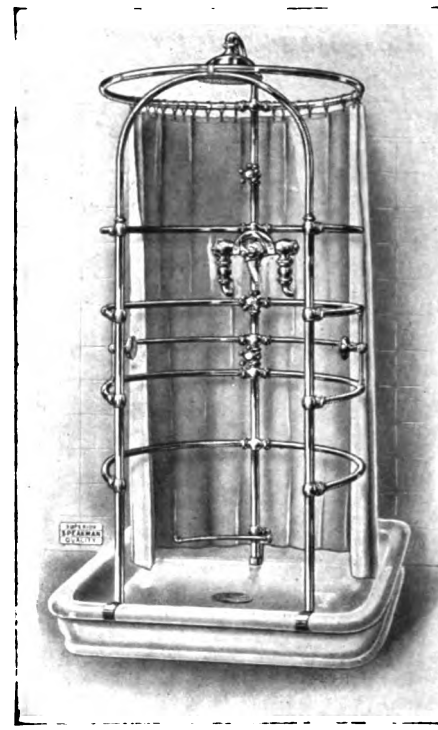


Figure 1020.
Nickel Plated Brass Needle Shower with Bidet and Liver Spray. Operated with **Speakman's Non-Scalding Regulating Valve (simply by turning the one handle from left to right).**

List $175.00

Receptor not included.

All of our Needle Showers are furnished with strainer unions, which prevent sediment from getting into the sprays or valves.

See our full page ad. in Sweet's

Speakman Supply & Pipe Co.

Riverview Works

Wilmington, Delaware

Manufacturers of the largest line of Showers made

OFFICES

156 Fifth Ave., New York City—Albert G. Weber
Monadnock Bldg., San Francisco, Cal.—W. E. Gilchrist

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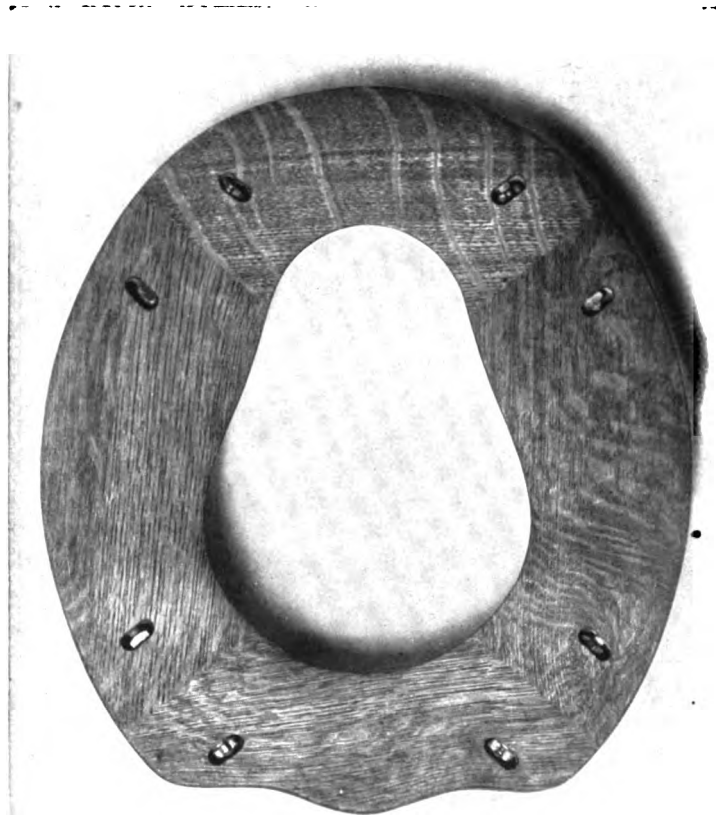
Nothing is Left to the Imagination

EVERY feature of the "Never-Split" Closet Seat is shown with distinctness, so that you will receive fully as favorable an impression from our advertising and catalogue as though the seats themselves were sent to you for inspection.

The result is an absolutely perfect understanding of the various styles and qualities of finish and the distinction between the lasting qualities of the "Never-Split" Seat as compared with the ordinary kind.

Those who have had experience with the "Never-Split" Seat will not enter any other closet seat into the construction of any building.

"Never-Split" Closet Seats are ***built,*** bolts inserted, and finished by skilled hands, and are positively guaranteed to Architect, Building Contractor, Plumber and Owner for five years, not to split or come apart at the joints a hair's breadth. Specify "Never-Split" Seats and run absolutely no risk.



This is the underside of the "NEVER-SPLIT" Seat as it appears with bolts tightened. The next step is the filling of the eight mortise holes with a composition matching the color of the wood, and which sets as hard as rock.

Specification requirements may be obtained from page 8 of our Catalogue "C." Please make requisition by Post Card.

NEVER-SPLIT SEAT COMPANY

EVANSVILLE, INDIANA

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CHATTANOOGA, TENN.

"Southern Beauty" Lavatories



REGISTERED TRADE MARK

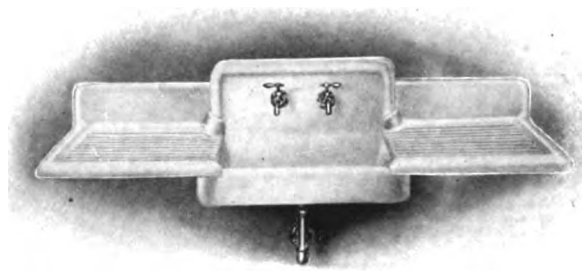


PLATE D-94 [Patent applied for]

One Piece Roll Rim and Apron Kitchen Sinks, etc.

OUR new "Chattanooga" sink combination with right and left drain boards. Nothing similar made by any other manufacturer. Sink, back and apron cast integral; drain board and 8-inch back cast integral. Sink and drain boards supported by concealed wall hangers. We also make this sink with corner piece cast integral for either right or left corner; made in several sizes, and can be furnished with one or two drain boards. Lists and full description given in our catalogue "D," copy of which we will be glad to furnish on application.

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Sales Manager

THE CAHILL IRON WORKS
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2006 Bush Street
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Mueller Self-Closing Work



(Patented)

Self-closing work has a distinct and specific duty—the prevention of waste.

Its proper sphere is public and semi-public buildings. Unless quick, positive and dependable in action, it is of no real value.

When it is quick, positive and dependable, it is a sentinel worth its weight in gold. Every time it checks a waste it makes money for its owner.

Mueller self-closing work is **unconditionally guaranteed** to be quick, positive and dependable. It closes against pressure by means of a strong phosphor bronze spring, but its operation is made Easy by roller bearings in the cap.

It is fitted either with six arm, Globe or Primo handle, as illustrated, plain or indexed.

TRADE MARK
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REGISTERED

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Works and General Offices
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Eastern Division
New York, N. Y., U. S. A.
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TO OUR PATRONS AND FRIENDS:

WE TAKE PLEASURE IN ANNOUNCING THE CONSOLIDATION OF THE

FEDERAL COMPANY OF CHICAGO

AND THE

HENRY HUBER COMPANY OF NEW YORK

UNDER THE TITLE OF

FEDERAL-HUBER COMPANY

SINCE THE ESTABLISHMENT OF OUR RESPECTIVE BUSINESSES IN 1857 AND 1878 WE HAVE EVER STRIVEN TO EXCEL IN THE MANUFACTURE OF PLUMBING FIXTURES, TO MAKE OUR PRICES AS REASONABLE AS WAS CONSISTENT WITH GOOD WORKMANSHIP, AND TO APPRECIATE SMALL ORDERS AS WELL AS LARGE.

THE MANY PROMINENT HOTELS, OFFICE BUILDINGS, PUBLIC INSTITUTIONS AND RESIDENCES, BOTH THROUGHOUT THE UNITED STATES AND ABROAD, THAT HAVE BEEN EXCLUSIVELY EQUIPPED WITH THE FIXTURES MANUFACTURED AT OUR FACTORIES, AMPLY ATTEST THE EXCELLENCE OF OUR WARES.

ASSURING YOU OF OUR CONTINUED EFFORTS TO MAINTAIN THE STANDARD OF OUR FIXTURES AND TO UPHOLD OUR UNITED REPUTATIONS FOR FAIR DEALING, GOOD WORKMANSHIP AND PROMPT DELIVERIES, WE BESPEAK FOR THE CONSOLIDATED COMPANY A CONTINUANCE OF YOUR VALUED PATRONAGE.

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Neatness, cleanliness and perfect sanitation

are features impossible in the ordinary water closet. The majority of them are fed from the unsightly, germ breeding box tank.

This is not so with the UNIQUE, which is flushed from a one-piece wrought steel high pressure tank, where it is impossible for dirt or germs to collect.

Unique Water Closets

STAPLES VALVE CO. TRADE Unique MARK NEWBURGH, N.Y.

TRADE MARK

work with a strong, positive flush at a pressure of 15 to 160 pounds. Require but one-half as much water as the box tank or flushometer types. They never leak and always stand filled. Tank can be hidden or exposed. No parts to get out of order, therefore no repairs to make.

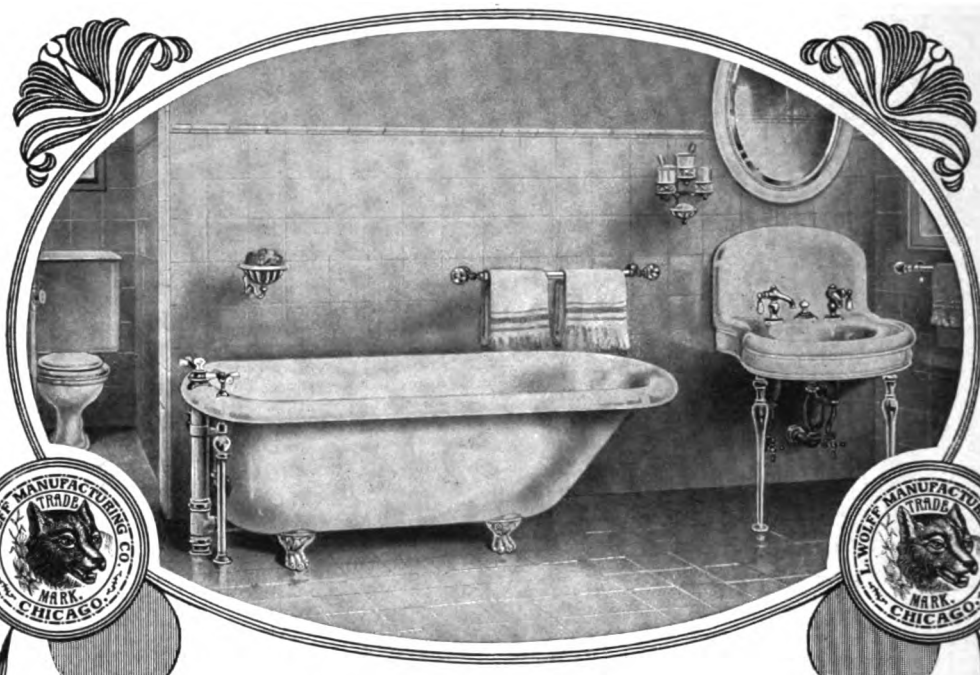
Send for catalogue.



STAPLES VALVE CO.

Newburgh, New York

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"Guaranteed"

"Guaranteed"

"Guaranteed"

There are as many conditions and degrees of responsibility entering into the "guaranteeing" of porcelain enameled iron plumbing fixtures as there are firms issuing "*guarantee labels.*"

ARCHITECTS of experience have decided that it is the name on a **"guarantee label"** that makes the guarantee worth specifying. A constantly increasing number of architects specify and insist that all porcelain enameled iron plumbing fixtures must bear the **"Wolff guarantee label."**

Fifty-three years of quality and broad, liberal business policy are behind every **"Wolff guarantee label."**

53 years of Quality **Established 1855**

L. Wolff Manufacturing Co.

MANUFACTURERS OF

Plumbing Goods Exclusively

The only complete line made by any one firm

DENVER **Showrooms, 91 Dearborn St., Chicago** **TRENTON**

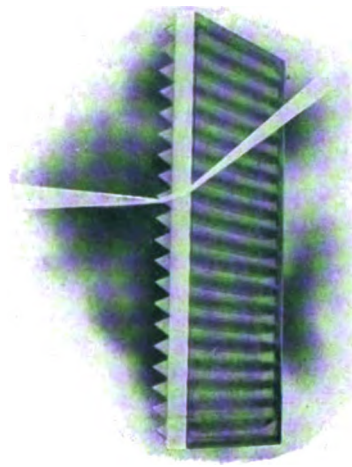
If you wish the most complete Plumbing Catalogue ever issued, send us a copy of your letterhead at once.

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The new 1908 Catalogue of L. Wolff Manufacturing Co. Should be in every office.

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Luxfer



This illustration shows how light rays are bent by means of prism angles

When the Sun Shines

there is rarely any need of artificial light in any part of buildings, because

Luxfer

prisms will deliver daylight to almost any part of the building at a cost so small that the saving in lighting bills will often pay in one year for the installation.

Let us give you some figures on your particular dark store, loft or office building.

AMERICAN Luxfer Prism COMPANY

CHICAGO, Heyworth Building
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BALTIMORE, 32 Builders' Exc.
CLEVELAND, 1022 Garfield Building
CINCINNATI, 31 Thoms Bldg.
DULUTH, 106 W. Michigan St.
INDIANAPOLIS, 342 E. Washington St.
KANSAS CITY, 948 N. Y. Life Bldg.
LOS ANGELES, 232 Bradbury Bldg.
MILWAUKEE, 1112 Railway Exc.
NEW YORK, 507 W. Broadway
NEW ORLEANS, 904 Hennen Bldg.
PITTSBURG, 1022 Fulton Bldg.
DALLAS, TEX., Builders' Exch.
PHILADELPHIA, 606 Chestnut St.
ROCHESTER, 38 Exchange St.
ST. LOUIS, 1002 Carleton Bldg.
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Satinette

and the trend of the times:

The interior of the Singer Building was finished *some months ago.* With Satinette *principally.*

The exterior (court walls) is being finished *now.* With Satinette *exclusively.*

The white enamel that a company like the Singer would use, "principally" at first but "*exclusively*" after it had been tried out, must necessarily have proved not merely "as good as" but *better than* others.

PINCHIN, JOHNSON & CO., Ltd., London

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Makers of the "Elastica" Finishes and "Kleartone" Stains

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